

Landscape Design by Eagle Point Software

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LANDSCAPE DESIGN

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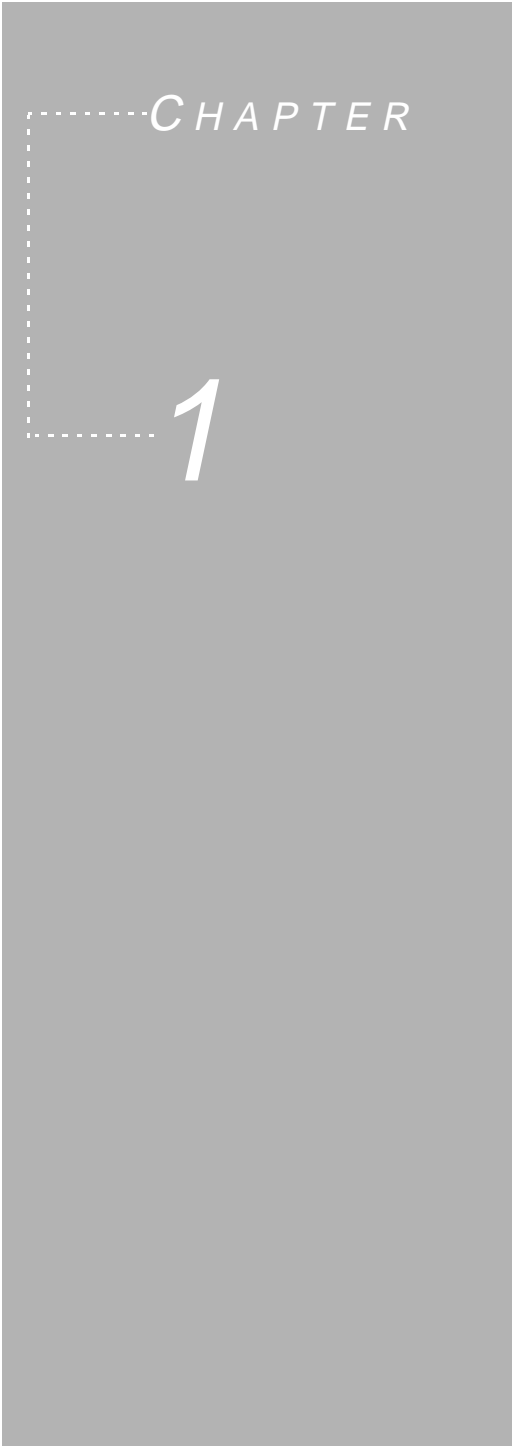
INTRODUCTION

There are six menus in the **Landscape Design** module. These include: Illustrate, Locate, Alterations, Materials, Tools, and Audit. Each menu has a chapter devoted to its purpose and functions.

This chapter discusses modifications to this version of **Landscape Design**, as well as new features.

In this chapter:


Overview 2



Overview

Eagle Point Software has reviewed its products and the commands included in each of them to more closely fit the actual design process. All functionality related to the creation of planting plans is included in this module. This includes the plant symbols, links to **Quantity Takeoff**, plant mixes, plant tables, growth simulation, vegetation lines, etc.

Landscape Design runs on AutoCAD and IntelliCAD, and it also runs as a Stand Alone product.

 *The Stand Alone products offered by Eagle Point Software run on the **Eagle Point Graphics Engine**, which is included with your purchase.*

New functionality includes converting plant tables between the name and alias, and allowing plant tables to be even more flexible by using either tags or an option to include both the common and scientific name on the same label. You can simply draw circles on a specified layer/level, then come back and convert all these circles into plant blocks that can be identified when using the Label command.

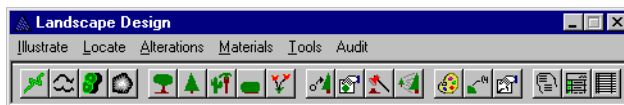


Figure 1-1 Landscape Design Tool Bar and Menu

ILLUSTRATE

The Illustrate menu (below) is used to provide graphical enhancements to a landscape planting plan. Such enhancements include items such as edge stipples, tree shadows, plant outlines, and vegetation lines.

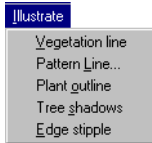


Figure 2-1 Illustrate Menu

In this chapter:

<i>Vegetation Line</i>	4
<i>Pattern Line</i>	6
<i>Plant Outline</i>	8
<i>Tree Shadows</i>	11
<i>Edge Stipple</i>	14

CHAPTER

2


Vegetation Line

KEY-IN COMMAND: `ldvegline`

ICON: 

The purpose of the Vegetation Line is to illustrate the edges of large masses of plants, rather than showing individual plants. Trees are often shown as just an arc, while shrubs may be shown as either arcs or some type of jagged line. Ground covers can be expressed in many forms including both a scalloped edge or jagged lines.

Each linetype is defined as a segment via a CAD block. The beginning of a segment must exactly match the endpoint of a segment in order to get a resulting line. The blocks are then exploded and a join is done to combine all the segments into a single line entry.

 *Do not use a polyline that has been splined. Splining causes many additional vertices to be inserted. You only want a simple outline of the area to be represented by the vegetation line if you are converting an existing polyline. In most cases, picking points gives you better results.*

 *If using AutoCAD/IntelliCAD/Eagle Point Graphics Engine, be sure to use a standard polyline, and not a lightweight polyline.*

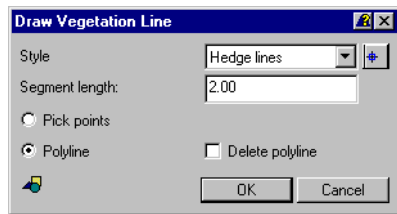




Figure 2-2 Draw Vegetation Line Dialog Box

Draw Vegetation Line Dialog Box Definitions

Option	Icon	Function
Style		The Style drop list allows you to choose from Hedge lines or Smooth Arcs.
PIC		Clicking on this icon allows you to define a setting by selecting either an object or picking points in CAD; this can be for length or for selecting an object.
Segment length		The segment length is a distance multiplier. Since all line types are defined as a block, this is essentially the X scale factor.

Draw Vegetation Line Dialog Box Definitions

Option	Icon	Function
Pick points		The Pick points radio button allows you to graphically pick points as the vegetation line is being placed. This requires no existing lines.
Polyline		The Polyline radio button allows you to utilize an existing polyline as the basis for the vegetation line.
Delete polyline		This option, used in conjunction with the Polyline option, allows the polyline that is used to be deleted automatically once the vegetation line is placed.
CAD Settings		This icon allows you to set color and layer/level information as well as linetype and width.

QuickSteps

Use the following steps to draw a vegetation line.

1. Select Illustrate → Vegetation Line.

The Draw Vegetation Line dialog box (Figure 2-2 on page 4) displays.

2. From the Style drop list, choose the style desired, either Hedge lines or Smooth Arcs.

3. Specify a distance for each segment in the Segment length edit field. You may type a value in the edit field, or click in the edit field and then on the PIC button and select the base point and end point in the CAD graphic.

4. Choose either Pick points or Polyline.

A. Pick Points: If you select Pick points, click on OK.

You are prompted to select points.

Select the points in the CAD graphics and press Enter when you are finished.

The vegetation line is drawn.

B. Polyline: If you select Polyline, specify if you want to delete the existing polyline and click on OK.

You are prompted to select the polyline.

C. Select the polyline in the CAD graphic.

The vegetation line is drawn.

Example

The following is an example of a vegetation line drawn by selecting a polyline and deleting the polyline.

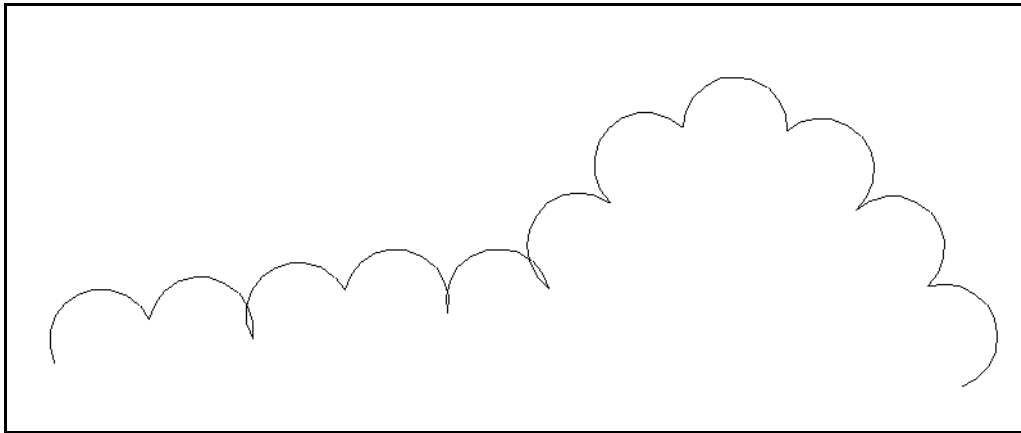


Figure 2-3 Vegetation Line Command Example

Pattern Line

LANDSCAPE DESIGN ➤ ILLUSTRATE ➤ PATTERN LINE

KEY-IN COMMAND: `ldpatline`

The Insert Pattern Line command allows you to pattern an object in the CAD graphic. You can pattern lines, arcs, and polylines/linestrings/complex chains.

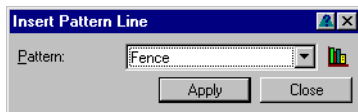



Figure 2-4 Insert Pattern Line Dialog Box

Pattern Line Dialog Box Definitions

Option	Icon	Function
Pattern		The Pattern drop list displays all of the patterns that have been created. Select the custom line pattern from the drop list.

Pattern Line Dialog Box Definitions

Option	Icon	Function
Custom Line Library		The Custom Line Library icon allows you to create or modify custom line patterns to be used for the Custom Line and Pattern Line commands.

QuickSteps

To pattern an object in your project, complete the following steps.

1. **Select Illustrate → Pattern Line.**

This displays the Insert Pattern Line dialog box (Figure 2-4 on page 6).

2. **Select the pattern to be used from the drop list.**
3. **If you want to create or modify a pattern, click on the Custom Line Library icon.**
4. **Click on Apply.**

You are prompted to select an object to pattern.

5. **Graphically select an object to pattern.**

Custom Line Library

LANDSCAPE DESIGN ➤ ILLUSTRATE ➤ PATTERN LINE ➤ CUSTOM LINE LIBRARY

The Custom Line Library command allows you to create, modify, copy, and delete patterns that can be used. This command lists all of the patterns that have been created. A custom line includes a name, spacing, size, specifies what type of object it is (text or block/cell), whether the line or arc is trimmed, and the text or block/cell name that is associated with it.

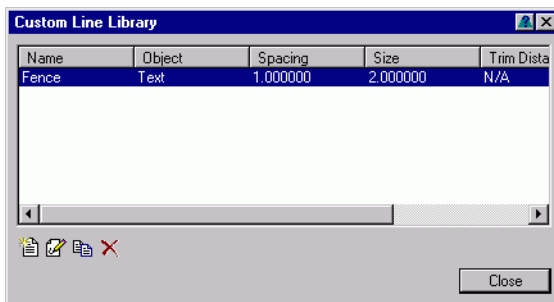






Figure 2-5 Custom Line Library Dialog Box

Custom Line Library Dialog Box Definitions

Option	Icon	Function
Name		The Name column displays the description of the pattern.
Object		The Object column displays what type of graphic feature is being placed. The object can either be text or block/cell.
Spacing		The Spacing column displays what distance lies between the patterns when they are placed in the CAD graphic. The spacing is in plotted units.
Size		The Size column displays what size the text is when it is placed in the CAD graphic. The size is active only for text.
Trim Distance		The Trim Distance column displays YES when the pattern is defined to trim the line around the text or block/cell. It displays NO when the pattern is defined not to trim the line around the text or block/cell.
Scale Factor		The Scale Factor column displays what the scaling factor of the block/cell is when it is placed into the CAD graphic. This is active only for block/cell.
Text or Block/ Cell Name		This field displays the text exactly as shown, or the name of the block/cell that is used when using this pattern.
New		Clicking on this icon allows you to add a multitude of customer lines to the library.
Modify		Clicking on this icon allows you to modify existing entries in the custom line database.
Copy		Clicking on this icon allows you to copy existing entries in the custom line database.
Delete		Clicking on this icon allows you to delete existing entries in the custom line database.

Plant Outline

LANDSCAPE DESIGN ➤ ILLUSTRATE ➤ PLANT OUTLINE

KEY-IN COMMAND: `ldoutline`


ICON:



The Plant Outline command provides a means for letting you create an outline around a selected group of plants. The outline is located on a separate layer/level; thus, the layer/level containing the symbols can be turned off, showing only the outline. An option for a tick mark is provided in the center of each plant location. It is then feasible to have a simplified graphic showing all plant locations, but with just a border around the plant massing. Many times this is easier to view than a large number of individual symbols.

With the Plant Outline command, you may select the plants by a selection set, all plants, or specified layers/levels. Input is also requested if a tick mark should be placed in the center of each plant, and an offset for the surrounding boundary line.

The outline and tick marks should each be on a different layer/level than the symbol layers/levels. That way, the symbols can be turned off, showing only the remaining outline if desired.

 *Be sure to set your layers/levels so the plant symbols, plant outline, and center tick marks are all on separate layers/levels for maximum flexibility in turning these items on and off.*

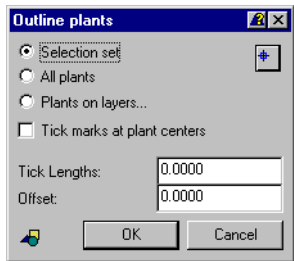




Figure 2-6 *Outline plants Dialog Box*

Outline plants Dialog Box Definitions

Option	Icon	Function
PIC		Clicking on this icon allows you to define a setting by selecting either an object or picking points in CAD; this can be for length or for selecting an object.
Selection set		When the Selection set radio button is on, you are prompted to select plants to include inside of the outline.
All plants		This option includes all plants in the drawing inside of one outline automatically. No selection is needed.
Plants on layers		Turning on this radio button shows all current layers/levels so you can have only the plants on a layer/level you select included in the outline.
Tick marks at plant centers		This creates an additional tick mark inside of all the selected plant symbols. This is helpful if you suppress the plant layer/level and still wish to know the plant location.
Tick Lengths		This governs the size of the tick mark in the previous location.
Offset		This is the distance to hold between any one plant and the plant outline.
CAD Settings		Clicking on this icon allows you to set color and layer/level information as well as linetype and width.

QuickSteps

Use the following steps to create an outline around a selected group of plants.

1. **Select Illustrate → Plant Outline.**

The Outline plants dialog box (Figure 2-6 on page 9) displays.

2. **Select the method for picking which plants you want to outline (Selection set, All plants, or Plants on layers/levels).**
3. **Toggle the tick mark selection on or off (the default is on).**
4. **Specify a tick length if other than zero. You may do so by typing a value in the edit field or by clicking in the edit field, clicking on the PIC button, and selecting a base point and end point in the CAD graphic.**
5. **Specify an offset distance from the plant if other than zero. You may do so by typing a value in the edit field or by clicking in the edit field, clicking on the PIC button, and selecting a base point and end point in the CAD graphic.**
6. **Click on OK.**
 - A. **Selection Set:** If you selected Selection set, you are prompted to select the plants. Graphically select the plants you want to outline and press Enter.
 - B. **Plants on Layers/Levels:** If you selected Plants on Layers/Levels, the Select Layers dialog box displays. Select the layers/levels on which the plants you want to outline reside and click on OK.

The plants are outlined, but the original plant layer/level is still on. Turn off the plant layers/levels to view only the resulting outline. The tick marks, if you chose to draw them, are present.

Example

The following is an example of the Plant Outline command.

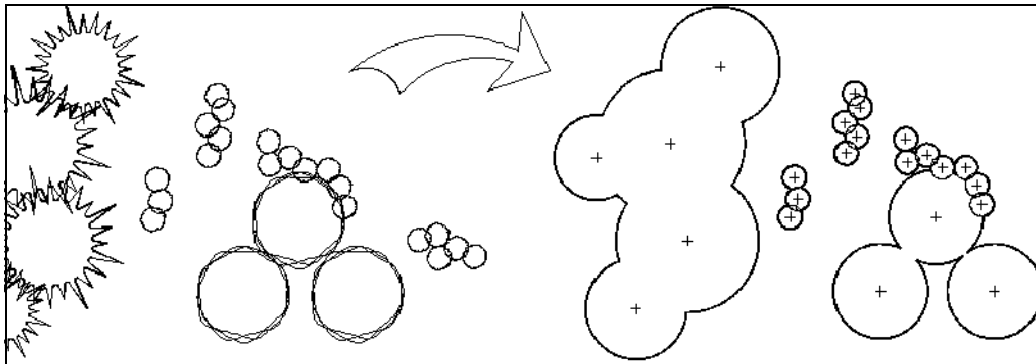


Figure 2-7 Plant Outline Example

Tree Shadows

LANDSCAPE DESIGN ➤ ILLUSTRATE ➤ TREE SHADOWS

KEY-IN COMMAND: `ldshadow`




ICON: 

The Tree Shadows command is intended to create graphic tree shadows for rendering plan view site plans. The shadows are not intended to be accurate representations of shadow sizes based upon the time of day, but are instead used for illustrative purposes.

When this command is selected, you are prompted to select the plants by which you need to place a shadow. This selection may be either by selection set or any number of specified layers/levels.

You may choose the shadow styles, the shadow angle, and the new layer/level name on which to place the shadow entities by using the CAD properties option. You may select grips on the shadows and rotate them or lengthen them, and the interference checking updates the image correctly.

The program automatically determines if a round or pointed shadow should be placed on the plant, based upon whether it is a broadleaf or conifer (from block name).

-  *The “open” style shadow makes your drawings significantly smaller and faster than a “solid” style does. Use solid styles only on smaller drawings or at the end of the design phase to save yourself drawing regeneration time during design.*
-  *Keep shadows on a separate layer/level that can be easily frozen.*
-  *The program can distinguish between broadleaf and conifer symbols by the name given to each. If you want pointed shadows, use a conifer symbol. Round shadows are applied to all other plant materials, including shrubs and palm trees.*

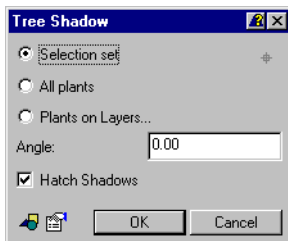





Figure 2-8 Tree Shadow Dialog Box

Tree Shadow Dialog Box Definitions

Option	Icon	Function
PIC		The PIC button is used when you are selecting the angle of the tree shadow. You are prompted to select two points for the angle.
Selection set		Selection set prompts you to select plants to include inside of the outline.
All plants		The All plants option includes all plants in the drawing inside of one outline automatically. No selection is needed.
Plants on Layers		The Plants on Layers radio button displays all current layers/levels so you can have only plants on a layer/level you select included in the outline.
Angle		This is the angle at which the shadow falls away from the plant.
Hatch Shadows		This is a toggle that, when on, hatches inside the shadow outline.
CAD Settings		Clicking on this icon allows you to set color and layer/level information as well as linetype and width.
Hatch Settings		This controls the hatch settings that fill in the shadow area.

Hatch Settings

LANDSCAPE DESIGN ➤ ILLUSTRATE ➤ TREE SHADOWS ➤ HATCH SETTINGS

The Hatch Settings command offers different ways to fill in the shadow area. You may choose a user-defined pattern or choose one provided for you.

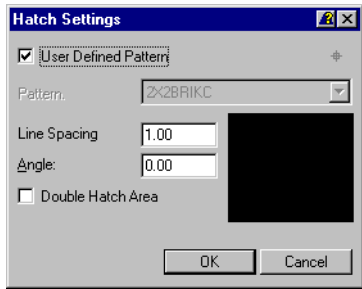


Figure 2-9 Hatch Settings Dialog Box

Hatch Settings Dialog Box Definitions

Option	Function
User Defined Pattern	When toggled on, the User Defined Pattern option allows you to control the hatch spacing and angle.

Hatch Settings Dialog Box Definitions

Option	Function
PIC	This option allows you to graphically select blocks to substitute.
Pattern	The Pattern drop list allows you to select from the available patterns.
Line Spacing	This edit field sets the hatch line spacing. The Line Spacing edit field is utilized when the User Defined Pattern is selected.
Angle	This edit field sets the hatch line angle. The Line Spacing edit field is utilized when the User Defined Pattern is selected.
Double Hatch Area	The Double Hatch Area toggle allows for double hatch lines when using the User Defined Pattern option.
View Area	The View Area is a preview of how the shadow appears.

QuickSteps

Use the following steps to create tree shadows.

1. Select Illustrate → Tree Shadows.

The Tree Shadow dialog box (Figure 2-8 on page 11) displays.

2. Select the desired method for indicating which plants are to be shadowed (Selection set, All plants, or Plants on Layers/Levels).

3. Indicate an angle in your drawing for the shadows.

You may do so by typing a value in the Angle edit field or by clicking in the edit field, clicking on the PIC button, and selecting a start point and a base point in the CAD graphic.

The angle is reported in the Angle edit field.

4. Choose a shadow style of either solid, screened, or outline.

5. Click on OK.

A. **Selection set**: If you selected Selection set, graphically select the trees you want to shadow. Press Enter when you are finished.

B. **Plants on Layers/Levels**: If you selected Plants on Layers/Levels, the Select Layers/Levels dialog box displays. Select the layers/levels on which the trees you want to shadow reside and click on OK.

The shadows automatically appear and are either round or pointed, based on the tree symbols chosen.

Example

The following is an example of the Tree Shadow command.

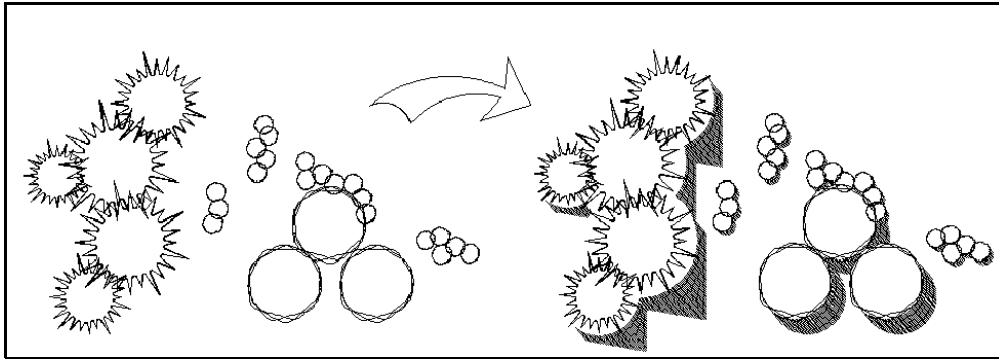


Figure 2-10 Tree Shadow Example

Edge Stipple

LANDSCAPE DESIGN ➤ ILLUSTRATE ➤ EDGE STIPPLE

KEY-IN COMMAND: `ldstipple`

ICON: 

The Edge Stipple command is used to graphically indicate turf areas or other irregular shaped planting beds by inserting a large number of dots along the edge of the area and gradually fading to fewer and fewer dots in the center. This technique is often used for rendering plan view site plans.

- Always use a closed polyline as the border of your stippled area. A polyline that is not closed may work, but the results are unpredictable. Use simple areas with polylines that have not been splined. Do not use an area that is very small in one corner and very large in another area (use two polylines instead), as you do not want the offsets to overlap and give you poor results.

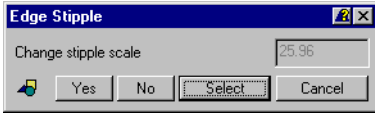



Figure 2-11 Edge Stipple Dialog Box

Edge Stipple Dialog Box Definitions

Option	Icon	Function
Change stipple scale		You may enter a scale of stippling effect here or accept the stipple scale that displays. A higher number produces less dense stipple.
CAD Settings		Clicking on this icon allows you to set color and layer/level information as well as linetype and width.

QuickSteps

The following steps describe how to use the Edge Stipple command.

- Draw a closed polyline to define the area to be stippled.**
- Select Illustrate → Edge Stipple.**

The Edge Stipple dialog box (above) displays.

You are prompted to select a closed polyline.

- Select a closed polyline.**

You are prompted to select a point.

- Select a point near the center of the area to be stippled.**

The preview lines are pre-inserted into your drawing.

- Click on No if the result is acceptable. Click on Yes if you want to modify the spacing between the dots.**

If Yes is chosen, you are prompted to select a point.

After the new point is selected, the command loops back to step 4, allowing you to retry until you are satisfied. Once No is selected, the stippling is inserted into your drawing.

Example

The following is an example of the Edge Stipple command.

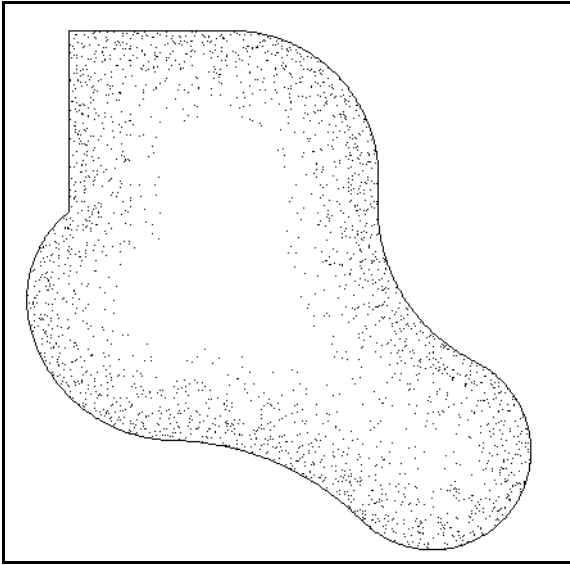


Figure 2-12 Edge Stipple Example

LOCATE

The Locate chapter explains how to use the Locate menu (below). Within the Locate menu are five commands. These include Broadleaf, Conifer, Palm/Cactus, Shrubs, and Flowers. Each command is explained in detail to help you understand its function.

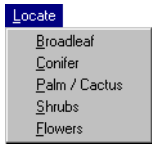


Figure 3-1 Locate Menu

In this chapter:

<i>Broadleaf</i>	18
<i>Conifer</i>	24
<i>Palm/Cactus</i>	24
<i>Shrubs</i>	24
<i>Flowers</i>	25

CHAPTER

3

Broadleaf

LANDSCAPE DESIGN ➤ LOCATE ➤ BROADLEAF

KEY-IN COMMAND: `ldinsertbroad`



ICON:

The Broadleaf command is used to insert broadleaf tree symbols into your drawing. It uses the Eagle Point Plant Symbol Library with the settings explained in this section.

Plant Symbol

By default, the Plant Symbol Library opens with a display of symbols selected from the menu or tool bar. For example, if you select Broadleaf from the Locate menu, or click on the Broadleaf icon, the Plant Symbol Library of Broadleaf symbols displays. If you desire to see a plant in a different detail, you must select, from the Plant type menu, detailed 3D, simple 3D or detailed, or simple plan view.

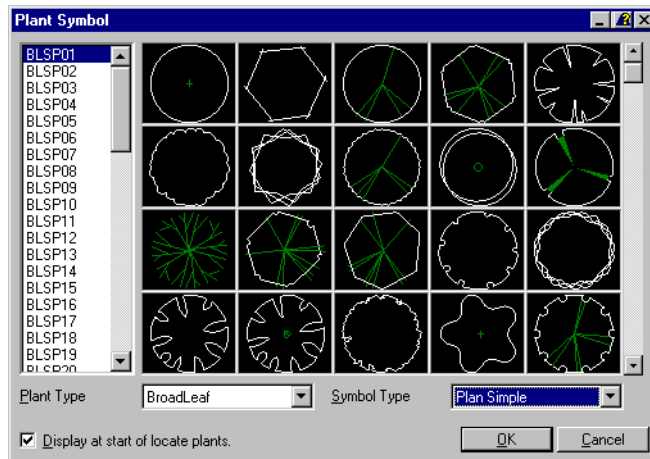


Figure 3-2 Plant Symbol Dialog Box

Plant Symbol Dialog Box Definitions

Option	Function
Plant Type	This field allows you to select the plant type to insert. Select from Broadleaf, Conifer, Flower, Palm-Cactus, or Shrubs.

Plant Symbol Dialog Box Definitions

Option	Function
Symbol Type	This field allows you to select the type of symbol. Select from Plan Simple, Plan Detail, 3D Simple, and 3D Detail.
Display at start of locate plants	This option displays this dialog box first when locating plants.

Locate Broadleaf

The Locate Broadleaf dialog box displays after you select the plant symbol you are going to place into the drawing. You are also going to assign a name, and planting size, as well as the size of the symbol that is placed in the drawing. You are also able to select the rotation angle, elevation, and whether to utilize a hedge or grove option. When you are finished placing your symbols, the dialog box displays again and then allows you to continue to place other types of plant material.

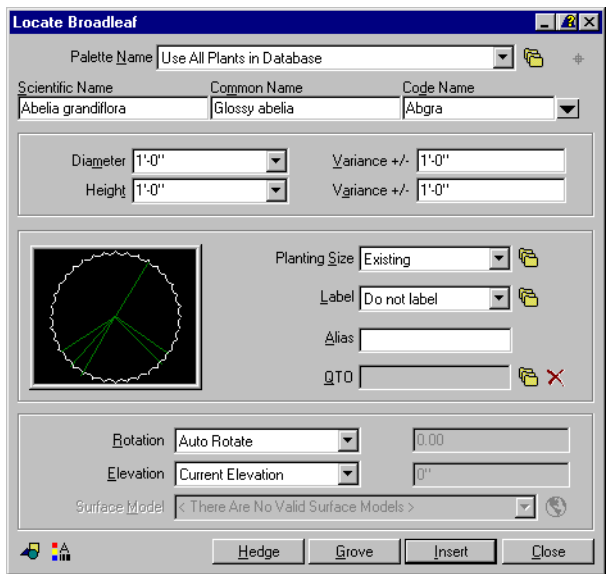









Figure 3-3 Locate Broadleaf Dialog Box

Locate Broadleaf Dialog Box Definitions

Option	Icon	Function
Palette Name		This drop list allows you to configure to a predefined palette. This shortens the list of names to select for a more streamlined naming process. Clicking on the icon at the end of this edit field displays a list of all defined plant palettes.
PIC		Clicking on this icon allows you to define a setting by selecting either an object or picking points in CAD; this can be for length or for selecting an object.

Locate Broadleaf Dialog Box Definitions

Option	Icon	Function
Scientific Name		Choose a scientific name from the drop list. If you select a drop list item, the associated Common and Code Names from the database also update.
Common Name		The Common Name drop list allows you to select plant information by its common name. Select a choice from the drop list or leave this field blank.
Code Name		Enter a code name for the plant insertion to use for sorting purposes later.
Diameter		The diameter assigned here is a scaling factor for both the X and Y directions and drawn such that the plant has a diameter of 1 unit.
Variance		This allows you to have a random look by varying the diameter value chosen by a variant either way.
Height		Height is a scaling factor for the Z direction.
Variance		This allows you to have a random look by varying the diameter value chosen by a variant either way.
Planting Size		This is the installed size of the plant. Click on the icon to display a list of all defined plant sizes.
Label		This option allows you to select the style of plant label that you wish to use upon the placement of the symbol. This automatically brings up the Label command after the symbols are placed. Click on the icon to display a list of all defined plant labels.
Alias		An alias is typically a two or three-character abbreviation used to identify the plant on the current project only.
QTO		Enter a part or SKU number to be used in your estimate. Click on the Manager icon to display a list of the QTO items.
		Click on the Delete icon to delete an item you wish not to use.
Rotation		This option allows you to specify the degree of angle at which the symbol is inserted in the drawing. Select from Auto Rotate, Rotate on Insertion, or Set Rotation.
Elevation		This option allows you to specify the Elevation at which the symbol is inserted in the drawing. Select from Auto Rotate, Rotate on Insertion, or Set Rotation.
Surface Model		This option allows you to specify the surface model on which the symbol is inserted in the drawing. These models would be generated with the Eagle Point Surface Modeling product.
CAD Settings		Clicking on this icon allows you to set color and layer/level information as well as linetype and width.
Text Settings		Clicking on this icon allows you to define the properties of the text to be inserted. Style, height, and layer information are editable as well.
Hedge		Clicking on this button displays the Hedge Row dialog box (Figure 3-4 on page 21).
Grove		Clicking on this button displays the Grove dialog box (Figure 3-5 on page 22).

Hedge Row

This option launches the Hedge Row command. This command allows you to specify the placement of your symbols for your hedge. You then set the parameters of the hedge row.

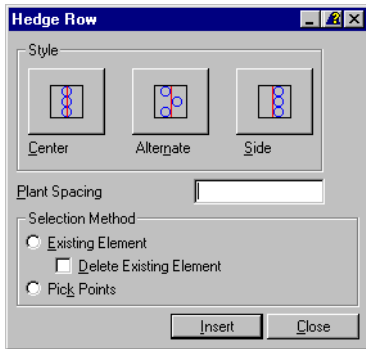


Figure 3-4 Hedge Row Dialog Box

Hedge Row Dialog Box Definitions

Option	Function
Center	This option places a selected symbol along either a pre-drawn polyline or along points that are chosen.
Alternate	This option staggers the placement of the symbols along either a pre-drawn polyline or along points that are chosen.
Side	This option places the symbol on the selected side of either a pre-drawn polyline or along points that are chosen.
Plant Spacing	This edit field allows you to type in the distance between the placed symbols.
Existing Element	This radio button allows you to select an entity in the drawing for your hedge to follow. These can be straight or curved entities.
Delete Existing Element	Toggle on this option to remove the defining entity that was used in the Existing Element feature.
Pick Points	The Pick Points radio button allows you to graphically pick points as the vegetation line is being placed. This requires no existing lines.

Grove

This option launches the Grove command. This command allows you to specify the placement of your symbols for your grove. You then set the parameters of the grove. You

need to have a closed polyline/complex chain in the drawing before using the command. This line serves as the boundary for the grove.

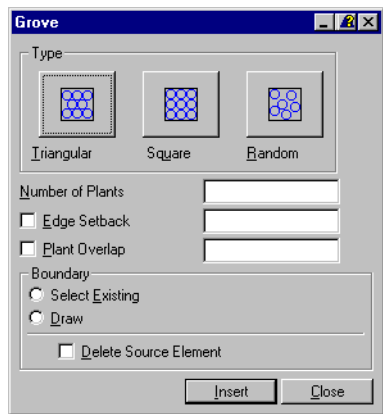


Figure 3-5 Grove Dialog Box

Grove Dialog Box Definitions

Option	Function
Triangular	Plants may be placed in triangular, or a staggered fashion, according to the spacing set, inside an existing polyline. The graphic image changes to show a triangle pattern.
Square	Plants may be placed in a squared pattern, or aligned according to the spacing set, inside an existing polyline. The graphic image changes to show a square pattern.
Random	A random grove may be created and the specified number of plants within a user-specific area, disregarding spacing, is inserted. The graphic image changes to show a random pattern.
Number of Plants	This edit field shows the amount of plants displayed.
Edge Setback	This toggle allows your symbols to be placed at a specific distance from the boundary of the grove. This prevents your symbols from overlapping the boundary.
Plant Overlap	This toggle allows you to select the amount of overlap (if any) desired when placing the symbols.
Select Existing	This radio button allows you to select an entity in the drawing for your grove to fill. You need to have a closed polyline/complex chain in the drawing before using the command. This line serves as the boundary for the grove.
Draw	This radio button allows you to draw the boundary for the grove dynamically. You are limited to straight-line segments when using this option.
Delete Source Element	This toggle, when turned on, removes the linework defining the area in which the grove was placed.

QuickSteps (Named Plant Method)

This option explains how to insert a named plant of known planting size into the CAD graphic.

1. **Select Locate → Broadleaf.**

The Plant Symbol dialog box (Figure 3-2 on page 18) displays.

2. **Select a plant symbol and click on OK.**

The Locate Broadleaf dialog box (Figure 3-3 on page 19) displays.

3. **Identify the name (scientific or common) and planting size of the plant.**

4. **Set a scale factor for crown diameter and plant height. Input a variance factor.**

For example, if a crown diameter was set at 25 feet and you put in a variance factor of 5, as you insert multiple plants, they can range in size from 20 to 30 feet, giving a more natural appearance.

5. **Select Auto Rotate from the Rotation drop list.**

Each plant is inserted at a different rotation angle, giving a more natural appearance.

6. **Select Current Elevation from the Elevation drop list.**


7. **Click on Insert.**

8. **Graphically select the locations for your symbols.**

9. **Add other symbols as desired by changing the settings and/or selecting another symbol. When you have finished, click on Close in the Locate Broadleaf dialog box to close.**

QuickSteps (Hedge Row or Grove Method)

This option explains how to insert trees into a hedge row or grove.

 *If you wish to insert trees into a grove, you must have a closed polyline in the drawing.*

1. **Follow steps 1-5 in QuickSteps (Named Plant Method) on page 23.**

2. **Click on either Hedge or Grove. Choose the appropriate settings.**

By default, the spacing is equal to the crown diameter of the plant, which gives you plants right next to each other. This works great for a hedge, but you may want to space the plants out for a grove (unless you have a random grove, such as a forest, in which case the distance between the plants is also random).

3. **Click on Insert.**

You are prompted for additional input, such as selecting end points of the hedge line, or selecting the polyline that is the boundary of the grove area.

4. Select accordingly in the CAD graphic.
5. Add other symbols as desired by changing the settings and/or selecting another symbol. When you have finished, click on Close in the Locate Broadleaf dialog box.

Conifer

LANDSCAPE DESIGN ➤ LOCATE ➤ CONIFER

KEY-IN COMMAND: `ldinsertconifer`

ICON: 

The Conifer command is used to insert conifer tree symbols into your drawing. It uses the standard Plant Symbols Manager.

See *Broadleaf* on page 18 and *QuickSteps (Named Plant Method)* on page 23 for more information.

Palm/Cactus

LANDSCAPE DESIGN ➤ LOCATE ➤ PALM/CACTUS

KEY-IN COMMAND: `ldinsertpalm`

ICON: 


The Palm/Cactus command is the same as the Broadleaf and Conifers commands.

See *Broadleaf* on page 18 and *QuickSteps (Named Plant Method)* on page 23 for more information.

Shrubs

LANDSCAPE DESIGN ➤ LOCATE ➤ SHRUBS

KEY-IN COMMAND: `ldinsertshrub`

ICON: 

The Shrubs command works the same as the other plant symbol insertion commands.

For more information, see *Broadleaf* on page 18 and *QuickSteps (Named Plant Method)* on page 23.

Flowers

LANDSCAPE DESIGN ➤ LOCATE ➤ FLOWERS

KEY-IN COMMAND: `ldinsertflower`

ICON: 

The Flowers command is the same as any other plant symbol insertion.

For more information, see *Broadleaf* on page 18 and *QuickSteps (Named Plant Method)* on page 23.

ALTERATIONS

The Alterations menu (below) contains a variety of commands that assist you in taking design concepts and altering them to become final design documents or performing “what if” scenarios.

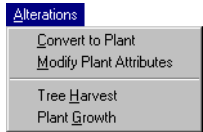



Figure 4-1 Alterations Menu

In this chapter:

<i>Convert to Plant</i>	28
<i>Modify Plant Attributes</i>	31
<i>Tree Harvest</i>	33
<i>Plant Growth</i>	35

Convert to Plant


KEY-IN COMMAND: `ldconvert`

ICON: 

The Convert to Plant command converts all circles on a specified layer/level, which you can choose from a list, and replaces the circles with an insert of the selected plant symbol at a scale equal to the diameter of the circle. This is useful for converting from a conceptual plan of basic geometry to a more detailed planting plan.

This command asks you to pick all the circles by selection set or by layer/level (choose from a drop list). You are also given a choice to keep the circles or delete them. All the circles that are chosen are then converted to plant symbols when you select the appropriate symbol from the Symbols Library Manager. You can choose to use a simple circle or any complex drawing block desired.

The diameter of the circle becomes the scale factor, and the center point of the circle becomes the insertion point. An option for assigning plant names and sizes is available.

 *If you still want your symbols to look like circles, simply choose a symbol that is a plain circle. Your plan is going to look the same, but all of the appropriate data is now attached.*

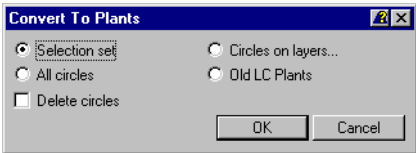


Figure 4-2 Convert To Plants Dialog Box

Convert To Plants Dialog Box Definitions

Option	Function
Selection set	Turn this radio button on to convert selected circles into plants. After you click on OK, you are prompted to select the circles.
All circles	Turn this radio button on to convert all circles in the drawing to plants.
Delete circles	Turn this toggle on to delete the circles once they are converted to plants.
Circles on layers/levels	Turn this radio button on to convert circles on a selected layer/level to plants.
Old LC Plants	When turned on, this radion button allows conversion of AutoCAD release 13 and 14 LANDCADD™ drawings.

QuickSteps

The following steps describe the Convert to Plant command.

1. **Select Alterations → Convert to Plant.**

The Convert To Plants dialog box (Figure 4-2 on page 28) displays.

2. **Select a circle selection method, either Selection set, All circles, or Circles on layers/levels.**
3. **If you do not want to keep the circles that are converted, toggle on Delete circles.**
4. **Click on OK.**

The Plant Symbol dialog box (below) displays.

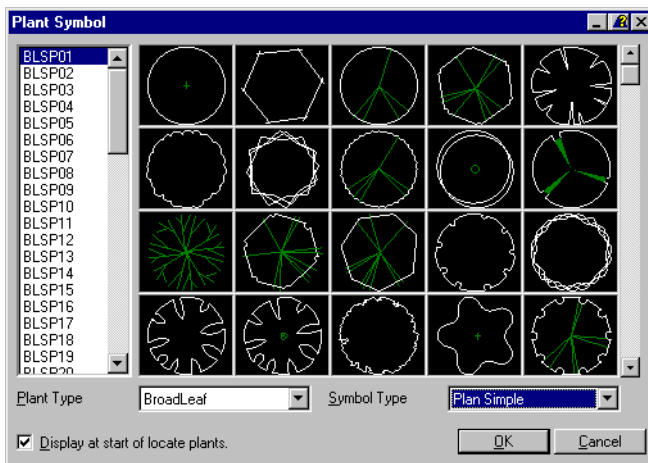


Figure 4-3 Plant Symbol Dialog Box

5. Choose a symbol from the Plant Symbol library.

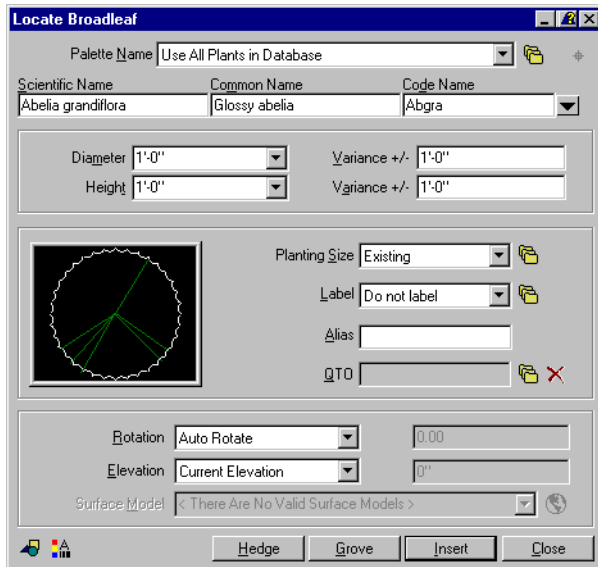


Figure 4-4 Locate Broadleaf Dialog Box

If, for example, the Broadleaf symbol is chosen, the Locate Broadleaf dialog box (above) displays. You can change the data in these edit fields as necessary.

6. Click on OK in the Plant Symbol dialog box (Figure 4-3 on page 29).

The Locate Broadleaf dialog box (above) displays.

7. Select plant information for the plant to be placed and click on Insert.

8. If you selected Selection set, you are prompted to select the circles. Press Enter when you are finished. If you selected Circles on layers/levels, the Select Layers/Levels dialog box displays. Select the layers/level on which the circles you want the convert to reside and press Enter.

The changes are made to your plan.

Example

The following is an example of the Convert to Plant command.

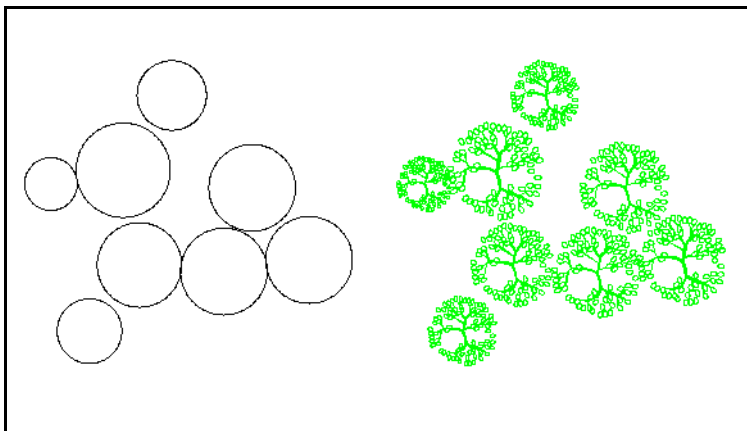


Figure 4-5 *Convert to Plant Example*

Modify Plant Attributes

LANDSCAPE DESIGN ➤ ALTERATIONS ➤ MODIFY PLANT ATTRIBUTES

KEY-IN COMMAND: `ldmodify`

ICON:



The Modify plant attributes command is used to edit plant names or change other information about a particular plant once it has already been placed in the drawing. All selected plants can be easily changed to another plant name or alias in one easy step. Thus, if you have many “Red maples” in your drawing and you want to change a half dozen to “Silver maples,” you can select those that you want to change and edit the data one time. Additionally, you can change all occurrences of the same plant in the drawing to the new data. Thus, if you have “Red maples” specified on your drawing, and they are not

currently available, you can switch all of them to an alternate choice with a single command.

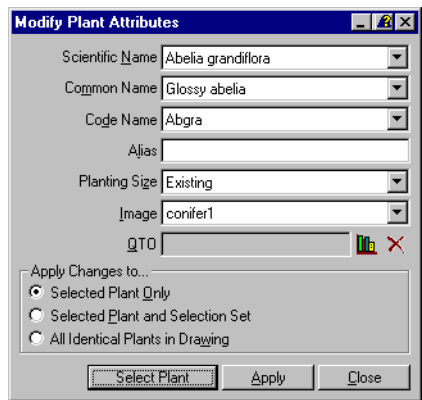


Figure 4-6 *Modify Plant Attributes Dialog Box*

Modify Plant Attributes Dialog Box Definitions

Option	Icon	Function
Scientific Name		Select the scientific name assigned to the item from this drop list.
Common Name		Select the common name of the item from this drop list.
Code Name		Select the code name used for the item from this drop list.
Alias		Alias is another name for the plant/shrub that you are working with in a specific project. An alias is usually smaller than the scientific or common name of the plant/shrub.
Planting Size		This is the installed size of the plant.
Image		This is a bitmap image that is associated with a particular plant.
Quantity Takeoff (QTO)		Quantity Takeoff is the material code of the item to be used for a quantity takeoff, or count.
Library		Clicking on this icon takes you to your user-defined library. It also allows you to access/add information.
Delete		Clicking on this icon allows you to delete the selected object.
Selected Plant Only		Turn this radio button on to modify only the plant selected.
Selected Plant and Selection Set		Turn this radio button on to modify a selection set of plants.
All Identical Plants in Drawing		Turn this radio button on to modify all the plants that have the same block and the same name associated with them.

QuickSteps

Use the following steps to edit your plant information.

1. Select Alterations → Modify Plant Attributes.

You are prompted to select a plant in your drawing.

2. Select a plant.

The Modify Plant Attributes dialog box (Figure 4-6 on page 32) displays.

3. Click on the Scientific Name edit field. Select or type a name.

The Common Name and Code Name are filled in automatically. Alternatively, you can enter a common name or code name, and the other values are filled in.

If no such plant is found in the name file, it is automatically added to the database with all other fields left blank.

4. Verify or enter a value in the Alias field.

5. From the drop list, select a planting size. If the correct planting size is not shown in the drop list, you may type any value desired.

6. Select or type a new quantity takeoff number for this plant, if desired.

7. Turn the All Identical Plants in Drawing radio button on or off as desired.

8. Click on Apply to activate the changes.

The name attributes for the selected plant(s) are changed.

Tree Harvest

LANDSCAPE DESIGN ➤ ALTERATIONS ➤ TREE HARVEST

KEY-IN COMMAND: `ldharvest`

ICON:



The Tree Harvest command is used for randomly removing a large number of tree symbols from your drawing, such as when they have been inserted using the Grove

option. This command contains options to specify the minimum size of tree to remove, and a number or percentage that should be harvested.

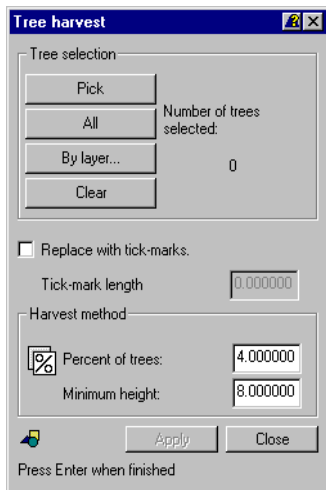


Figure 4-7 Tree Harvest Dialog Box

Tree Harvest Dialog Box Definitions

Option	Icon	Function
Tree selection		This group allows you to use one of three methods to select the trees to be harvested. The trees are not removed until you click on Apply, so you may click on the Clear button and make another selection if necessary. <ul style="list-style-type: none">➡ Pick: This gives you the opportunity to use a polygon window or crossing to select just a specified area.➡ All: Click on this button to remove all trees in your drawing.➡ By layer/level: Click on this button to select a layer/level. The trees on the selected layer/level are removed.➡ Clear: Click on this button to clear the existing selection.
Replace with tick-marks		This toggle denotes all removed trees with a tick mark.
Tick-mark length		This edit field allows you to specify the size of the tick mark.
Number of trees/ Percent of trees		Click on this icon toggle to switch between Number of trees and Percent of trees. Type the desired value in the corresponding edit field.
Minimum height		Minimum height is a filter to ensure that only large trees suitable for logging are removed and young trees are left as seed trees for the future.
CAD Settings		Clicking on this icon allows you to select symbol color, layer name, line type, and width. This is going to be for the symbol as well as the optional tick mark.

QuickSteps

Use the following steps to remove a large number of tree symbols from your drawing.

1. Select Alterations → Tree Harvest.

The Tree Harvest dialog box (Figure 4-7 on page 34) displays.

2. Select a Tree selection option, either Pick, All, or By layer/level.

A. **Pick:** If you selected Pick, you are prompted to select a group of trees. Select the trees you want to harvest and press Enter.

B. **By Layer/Level:** If you selected By Layer/Level, the Select layer/level dialog box displays. Select the layer/level on which the trees you want to harvest reside and click on OK.

3. Indicate how many trees you want to harvest by toggling to Number of trees or Percent of trees and typing a value in the corresponding edit field.

4. Specify a minimum height (size) of tree to remove. (You do not want to clear cut your saplings or seed trees!)


5. Click on Apply.

The trees you selected are harvested.

Plant Growth

LANDSCAPE DESIGN ⇨ ALTERATIONS ⇨ PLANT GROWTH

KEY-IN COMMAND: `ldgrowth`

ICON: 

The Plant growth command is used to show what a design may look like at any specified period of time. While the obvious is to use it for seeing how something may look x years into the future, it is also useful for seeing how the landscaping might look immediately after trees, shrubs, etc., are planted. This is accomplished by “growing” the plants “backwards” to have a more realistic view of what the plants may look like when planted, rather than expecting to see plants that have grown already.



 If you created your original site plan by showing trees at or near maturity, running the growth simulator may cause the symbols to shrink in size. That is because the information is being taken from the database, which indicates how big a plant is at maturity. You can use this feature to show your client what the site might look like when the job is installed rather than the way you have drawn it.



Figure 4-8 Plant Growth Dialog Box

Plant Growth Dialog Box Definitions

<i>Option</i>	<i>Icon</i>	<i>Function</i>
Grow from present		The Grow from present radio button applies the growth factor in addition to whatever growth factor is currently assigned to the plant.
Grow from year zero		This radio button applies the growth factor to the size at placement.
Years		Enter the years into the future that you wish to simulate. The last value used remains as the default stored in the INI file.
Selection set		The Selection set radio button allows you to declare the exact plants to grow based on your CAD selection (window, each pick).
All plants		The All plants radio button applies the growth (# years) to all plants in the drawing.
Plants on layers/levels		Choose a specific layer/level from the resulting dialog box to use as the selection method. All plants on the layer/level are scaled.
Growth Configuration		Click on the Growth Configuration icon to display the Plant Growth Configuration dialog box (Figure 4-9 on page 37).

Plant Growth Configuration

LANDSCAPE DESIGN ➤ ALTERATIONS ➤ PLANT GROWTH ➤ GROWTH CONFIGURATION

The Plant Growth Configuration dialog box (below) allows you to set your growth pattern, years to maturity, maturity size and random variation percentage. It also allows you to replace or scale existing blocks.

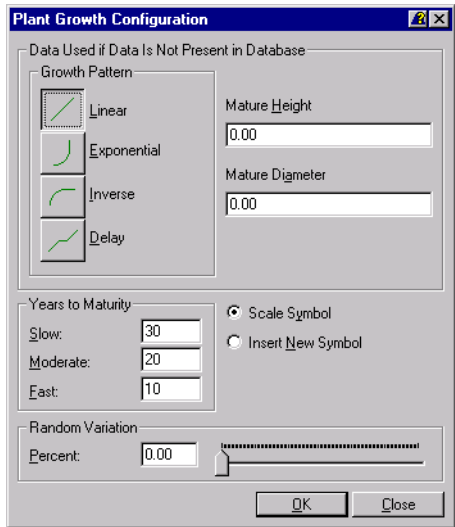


Figure 4-9 Plant Growth Configuration Dialog Box

Plant Growth Configuration Dialog Box Definitions

Option	Function
Growth Pattern	Choose from Linear, Exponential, Inverse, or Delay. <ul style="list-style-type: none">➤ Linear: Plant growth is at a constant rate for growth term.➤ Exponential: Plant growth is slower at beginning of growth term and accelerates later in term.➤ Inverse: Plant growth is rapid during first part of growth cycle and is stunted towards the end of the growth cycle.➤ Delay: The plant is at a steady rate of the growth cycle except for a stage of no growth.
Years to Maturity	Years to maturity depends upon urban versus natural conditions, as well as geographic location. Defaults are saved system wide from one project to the next. Your choices are Slow, Moderate, or Fast.
Mature Height	The height is not to exceed the value you type here, no matter what growth factor is used.
Mature Diameter	The diameter is not to exceed the value you enter here, no matter what factor is used.
Scale Symbol	This option applies a factor for growth to the existing symbol in your drawing.

Plant Growth Configuration Dialog Box Definitions

Option	Function
Insert New Symbol	This radio button replaces the existing symbol with a new symbol representing the new size.
Random Variation	Percent: This alters the growth of each plant, awarding to the variation chosen for a more random and natural appearance.

QuickSteps

The following steps describe how to use the Plant growth command.

1. Select Alterations → Plant growth.

The Plant growth dialog box (Figure 4-8 on page 36) displays.

2. Turn on the radio button that indicates whether you want to grow the plant symbols from their present size in your drawing or from year zero.

3. If desired, verify the configuration settings by clicking on the Growth Configuration icon.

The Plant Growth Configuration dialog box (Figure 4-9 on page 37) displays.

 Enter a variance of 10% to get a more random growth pattern.

4. While in the Plant Growth Configuration dialog box choose Scale Symbol or Insert New Symbol.

Inserting a new block has the advantage of simply being able to turn layer/level on and off to show different stages in the plant growth, but it has the disadvantages of making your drawing larger and possibly counting your plants multiple times during a quantity takeoff.

5. Click on OK in the Plant Growth Configuration dialog box to display the Plant Growth dialog box again.

6. Enter the number of years to grow the plant into the future and press the Tab key.

7. Select which plants you wish to grow, either by Selection set, All plants, or Plants on layers/levels (normally this is All plants).

8. Click on Apply.

A. **Selection set:** If you selected Selection set, you are prompted to select the plants. Press Enter when you are finished.

B. **Plants on layers/levels:** If you selected Plants on Layers/Levels, select the desired tree layers/levels from the Select Layers/Levels dialog box and click on OK.

The plants are grown. If any plants are not found in the database during this process, you are given the opportunity to enter the information for them at this time.

MATERIALS

The Materials menu (below) contains commands for identifying what plants are placed where on your drawing. These options allow you to associate a symbol to a plant name, either by labeling the symbol on your drawing or editing the associated information, creating a plant table or legend, identifying plant mixes for large areas, or modifying the plant lists. The commands described in this section are Plant palette, Label symbol, Edit labels, Plant mix, Plant table, and Launch database.

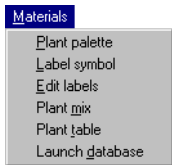


Figure 5-1 Materials Menu

In this chapter:

<i>Plant Palette</i>	42
<i>Label Symbol</i>	45
<i>Edit Labels</i>	51
<i>Plant Mix</i>	53
<i>Plant Table</i>	61
<i>Launch Database</i>	63

CHAPTER

5

Plant Palette

LANDSCAPE DESIGN ⇨ MATERIALS ⇨ PLANT PALETTE

KEY-IN COMMAND: `ldpalette`

ICON: 

The Plant Palette command is used to edit plant lists and have the plant list synchronized with the database (if it is available). You are able to browse the available plants in the database and create new plant lists that can be used during insertion and/or labeling.

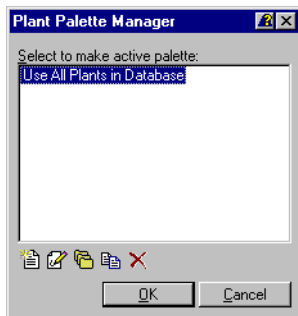







Figure 5-2 Plant Palette Manager Dialog Box

Plant Palette Manager Dialog Box Definitions

<i>Option</i>	<i>Icon</i>	<i>Function</i>
New Plant Palette		This option allows you to create a new palette name.
Modify Plant Palette		This option allows you to modify existing plant palettes.
Manager		Clicking on this icon displays all available/created plant palettes.
Copy Plant Palette		This option allows you to copy the existing plant palettes. This is useful when creating similar plant palettes.
Delete Plant Palette		This option allows you to delete existing plant palettes.

New



When you click on the New Palette icon the New Palette Name dialog box (below) displays. This allows you to assign a name to the new palette.



Figure 5-3 New Palette Name Dialog Box

Add

Once a name has been assigned, the Add Palette Data dialog box (below) displays, allowing you to specify the plant material that you would like included in the mix. Mixes can be comprised of a single plant, or multiple plants to be placed within the selected area.

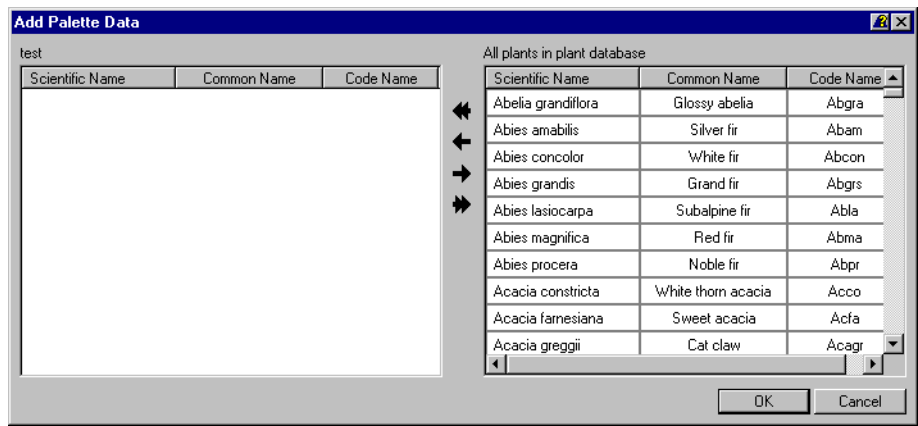






Figure 5-4 Add Palette Data Dialog Box

Add Palette Data Dialog Box Definitions

Option	Icon	Function
Scientific Name		This column shows the scientific names of the plants in the database.
Common Name		This column shows the common names of the plants in the database.
Code Name		This column shows the code names of the plants in the database. Code names are usually abbreviations and can be changed in the Plant Database module.

Add Palette Data Dialog Box Definitions

<i>Option</i>	<i>Icon</i>	<i>Function</i>
Add all items		Clicking on this icon adds all items in the existing palette into the current palette.
Add selected item(s)		Clicking on this icon allows you to add items individually or in groups to the palette.
Remove selected item		This option allows you to remove the selected item from the current palette under construction.
Remove all items		This option removes all items from the palette currently under construction.

QuickSteps

To create a custom palette, use the following steps.

1. Select Materials → Plant Palette.

The Plant Palette Manager dialog box (Figure 5-2 on page 42) displays.

2. Create a new plant palette file by clicking on the New icon. Type the name in the Palette Name edit field, then click on OK to display the Add Palette Data dialog box (Figure 5-4 on page 43).

3. Select the entries that you wish to add to your name file from the database list on the right by double-clicking on the corresponding name. To select multiple entries, you may use the Ctrl or Shift key while clicking your primary mouse button.

The row is highlighted.

4. Click on the Add Selected Items icon.

The entries are added to your custom plant palette. The palette is the data source for the current session.

If you accidentally add an entry to your palette, simply highlight the entry and click on the Remove Selected Name File icon.

5. When you are finished adding entries to your custom palette, save your palette by clicking on OK.

This redisplay the Plant Palette Manager dialog box.

6. Click on OK to close the Plant Palette Manager dialog box.

Label Symbol

KEY-IN COMMAND: `ldlabel`

ICON: 

The Label Symbol command is used to apply labels to tree and shrub symbols that have already been inserted into the drawing. When a label is applied, the symbol selected is effectively “tagged” as being the plant name given to it. That is, you have not just inserted a text label, but also assigned data to the symbol so that you can later do quantity take-offs, database links, etc. In this way, it is possible to place any number of plant symbols in your drawing as a conceptual plan. Then, when you are ready to identify what that plant is by attaching a label to it, you can turn the drawing into a final design.

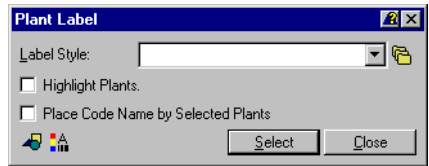





Figure 5-5 Plant Label Dialog Box

Plant Label Dialog Box Definitions

Option	Icon	Function
Label Style		Select the style of the plant label you wish to apply to symbols.
Manager		This icon opens the label manager. This is going to display all available/created labels. You may also add label styles.
Highlight Plants		Turn on the Highlight Plants toggle to highlight selected plants.
Place Code Name by Selected Plants		Turn on this toggle to place a code name by selected plants.
CAD Settings		This icon allows you to select symbol color, layer name, line type, as well as the width. This is going to be before the symbol as well as the optional tick mark.
Text Settings		This allows you to define the properties of the text to be inserted. Style, height, and layer information are editable as well.

Label Styles Manager

LANDSCAPE DESIGN ➤ MATERIALS ➤ LABEL SYMBOL ➤ MANAGER

The Label Styles Manager dialog box (below) displays when you click on the Manager icon in the Plant Label dialog box (Figure 5-5 on page 45).



Figure 5-6 Label Styles Manager Dialog Box

Label Styles Manager Dialog Box Definitions

Option	Icon	Function
Label Styles		Create your own label style and save it here. Use the icons below the list box to create new label styles or modify, copy, or delete label styles.
New		This option allows you to create new label styles.
Modify		This option allows you to modify existing label styles.
Delete		This option allows you to delete existing label styles.
Copy		This option allows you to copy the existing label styles. This is useful when creating similar labeling styles.

Edit Label Style

The Edit Label Style command allows you to establish the line style, label style, and text to be included in your plant labels in a wizard format.

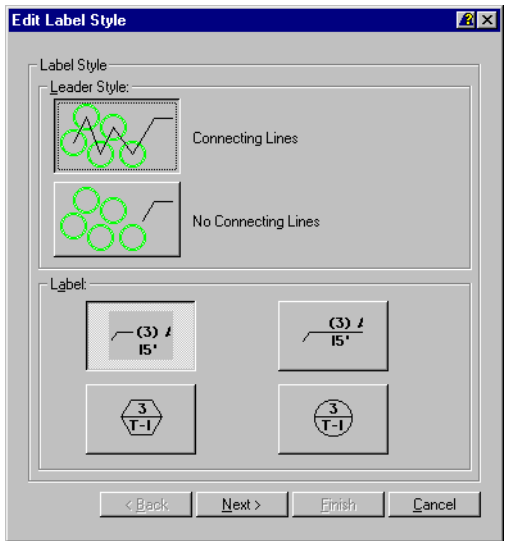



Figure 5-7 Edit Label Style Dialog Box

Edit Label Style Dialog Box Definitions

Option	Function
Leader Style	Select one of the types and click on Next. <ul style="list-style-type: none">➡ Connecting Lines: This creates a connected line pattern through all included plants for labeling.➡ No Connecting Lines: This creates one label pointing near a group of included plants.
Label	Select a label style from the four choices shown, then click on Next to establish other settings.

Edit Label Style Dialog Box Definitions

Option	Function
Other settings	After you have selected your line style and label style, you can establish other settings by clicking on Next. These lists show examples of formatting settings. You may select a style name, separator, and quantity format. When you have made your selections, click on Next to set your text options. <ul style="list-style-type: none">➤ Style name: Enter the name of the style you are creating.➤ Separator: Choose a separator symbol (@, -, --) from the drop list to be used in your label.➤ Quantity format: Choose how you wish your quantities to be annotated from the list. For example, you may select (5), 5-, 5, 5-- or [5].
 It is not necessary to have information in each field.	

LANDSCAPE DESIGN ➤ MATERIALS ➤ LABEL SYMBOL ➤ MANAGER ➤ MODIFY LABEL STYLE ➤ NEXT

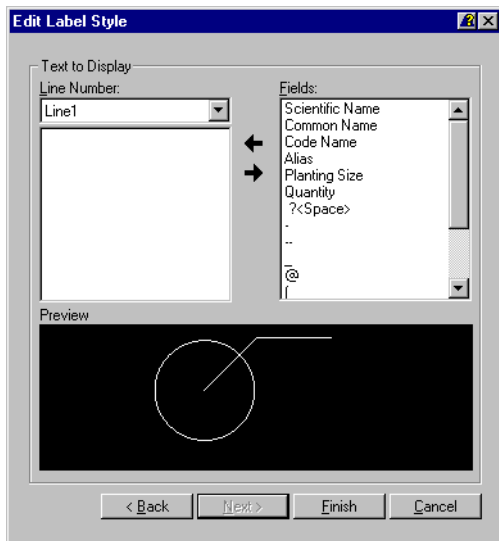



Figure 5-8 Edit Label Style Dialog Box

Edit Label Style Dialog Box Definitions

Option	Icon	Function
Line Number		This drop list allows you to select the line to which you wish to add or remove field choices.
Fields		This is a list of the fields that are available to display on the lines.
Add Field		This icon allows you to add fields to the line numbers.

Edit Label Style Dialog Box Definitions


<i>Option</i>	<i>Icon</i>	<i>Function</i>
Remove Field		This icon allows you to remove fields from the line numbers.
Preview		This window displays a preview as fields are added to the line numbers.



Figure 5-9 Label Style Dialog Box

The Label Style dialog box (above) displays after you click on Finish in the Edit Label Style dialog box.

QuickSteps

Use the following steps label plants.

1. Select Materials → Label Symbols.

The Plant Label Dialog box (Figure 5-5 on page 45) displays.

2. Click on the Manager icon.

The Label Styles Manager dialog box (Figure 5-6 on page 46) displays.

3. Click on the New icon.

The Edit Label Style dialog box (Figure 5-7 on page 47) displays.

4. Select the Leader Style and Label of your choice.

If you select Connecting Lines, you have to select each plant to be labeled, whereas selecting No Connecting Lines gives you the opportunity to use a selection set to label an entire group without having to select each plant.

5. Click on Next.

The Edit Label Style dialog box (Figure 5-8 on page 48) displays.

6. Select the items that you would like placed on the individual lines of the label. To accomplish this, double-click on one of the items in the Fields drop list. This places that information under the Line Number category. Click on the Line Number drop list and select the next line information to be placed on the label if necessary. Click on Finish when completed.

The Label Style dialog box (above) displays.


7. Type the name of the label style in the edit field and click on OK.

The Label Styles Manager dialog box redisplays.

8. Click on Done.

The Plant Label dialog box (Figure 5-5 on page 45) redisplays.

9. Click on Select and select the plant material to be labeled.

 *Keep in mind the label style that you selected when creating the label style. If you selected the Connecting Lines option, you have to select each plant to be labeled, whereas selecting No Connecting Lines gives you the opportunity to use a selection set to label an entire group without having to select each plant.*

A. Press Enter to accept your selection.

You are prompted to select the first point of the leader.

Select the first point of the leader.

You are prompted to select the second point of the leader.

Select the second point of the leader.

You are prompted to select the location of the label.

Select the location of your label.

If you selected the non-connecting lines you may select a group of plants that may contain several different plant types.

B. Select a group of plants.

The software displays each plant that was selected separately, asking if you would like to label this plant at this time.

Click on Yes or No.

If you select No, the command is finished. If you select yes, you are prompted to select the first point of the leader.

Select the first point of the leader.

You are prompted to select the second point of the leader.

Select the second point of the leader.

You are prompted to select the location of the label.

Select the location of the label.

After the plant is labeled, the software displays the next plant's information and you may repeat the above steps.

If you select no, the software displays the next plant to be labeled.

10. Right-clicking ends the Label Command.

Edit Labels

KEY-IN COMMAND: `l dedit`

ICON: 

The Edit Labels command is used to change the labels on a CAD graphic from scientific name to common name for all of the plants with a single menu selection. The Edit Labels command is also used to change from any one label style to any other label style.

You can convert labels in the drawing from one identifier (alias, common name, scientific name), to any other identifier. For example, change an entire CAD graphic that is labeled with scientific names to its corresponding alias or common name.

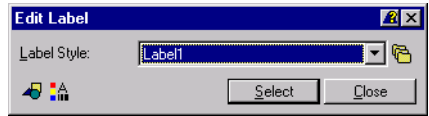





Figure 5-10 Edit Label Dialog Box

Edit Label Dialog Box Definitions

Option	Icon	Function
Label Style		Select the Label Style from the drop list.
Manager		This icon opens the label manager. This displays all available/created labels. You may also add label styles.
CAD Settings		This icon allows you to select symbol color, layer name, line type, and width. This is before the symbol as well as the optional tick mark.
Text Settings		This option allows you to define the properties of the text to be inserted. Style, height, and layer information are editable as well.

QuickSteps

Use the following steps to edit the labels in your drawing.

1. Select Materials ➔ Edit Labels.

The Edit Label dialog box (above) displays.

2. Click on the Manager icon.

The Label Styles Manager dialog box (Figure 5-6 on page 46) displays.

3. **Highlight the current label style you wish to edit and click on the Modify icon in the lower left corner.**

The Edit Label Style dialog box (Figure 5-7 on page 47) displays.

4. **Select the Leader Style and Label type and click on Next.**

The Edit Label Style dialog box (Figure 5-8 on page 48) displays.

5. **Select the appropriate information you wish to have placed on the label lines.**
6. **Click on Finish when completed.**

The Label Styles Manager dialog box (Figure 5-6 on page 46) redisplay.

7. **Click on Done.**

The Edit Label dialog box (Figure 5-10 on page 51) redisplay.

8. **Click on Select and pick the labels in the drawing that you wish to modify/edit.**
9. **Right-click or press Enter to end the command.**

The labels are redisplayed with the updated information.

Example

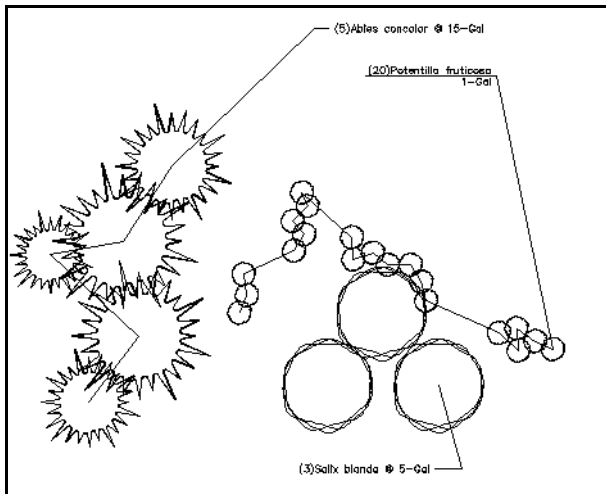


Figure 5-11 Edit Labels Example 1

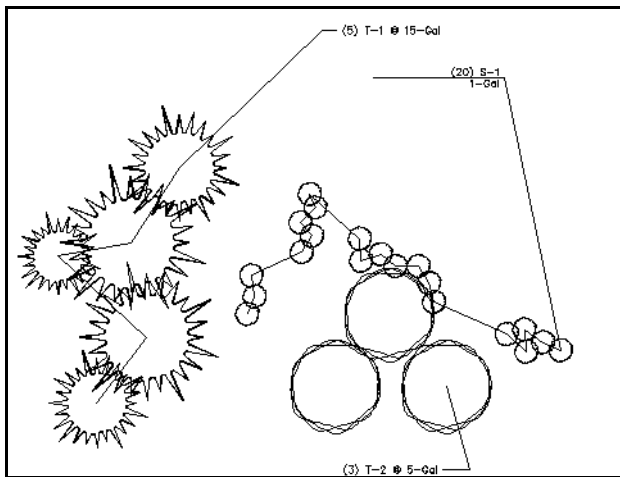


Figure 5-12 Edit Labels Example 2

Plant Mix


LANDSCAPE DESIGN ➤ MATERIALS ➤ PLANT MIX

KEY-IN COMMAND: `ldmix`

ICON:



The Plant Mix command is used to assign multiple plant names and sizes to an area, typically represented by a closed polyline. Plants are identified by a percentage of the total area shown, rather than locating individual plants. This is very useful for bedding areas, ground covers, or rock gardens. In the United Kingdom, larger plant materials such as shrubs may also be designated this way. For example, an area of the CAD graphic may be designated as Mix #1. This mix contains 30% of one plant species, 20% of another and 50% of a different species. Based on the area and distance between each plant (spacing on center), the program can quickly display the total number of each plant in this area. This information is called out in the label and the plants are included in a quantity takeoff, but there are no symbols for each individual plant, as the contractor is responsible for locating these in the field.

 *Use only closed polylines for this command. Do not use splined polylines.*

- ✎ *Plant mixes can be copied from one group to another by selecting the plant mix name and dragging it into the other group. If you use the right mouse button to perform this drag and drop, you can move a mix instead of copying it. Duplicate mixes are not permitted in the same group.*

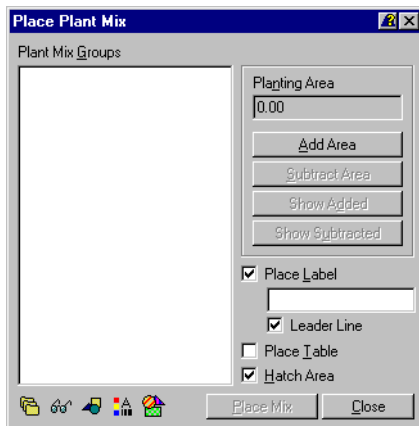







Figure 5-13 Place Plant Mix Dialog Box

Place Plant Mix Dialog Box Definitions

Option	Icon	Function
Plant Mix Groups		These are groupings/headings of user-defined plant mixes. Individual plant mixes are stored and retrieved under their appropriate groupings.
Planting Area		This displays the square footage selected.
Add Area		This button allows you to select a polyline/complex chain that serves as a boundary for the plant mix.
Subtract Area		This button allows you to select a polyline/complex chain that serves as a void area within the selected plant mix.
Show Added		Clicking on this button highlights the ploylines/complex chains that were selected as added areas.
Show Subtracted		Clicking on this button highlights the polylines/complex chains that were selected as void regions within the plant mix areas.
Place Label		If this option is toggled on, the plant mix label is placed where you select in the CAD graphic.
Leader Line		If this option is toggled on, the software prompts you to draw a leader from the planting area to the spot where the plant label should be placed.
Place Table		If this option is toggled on, a table containing detailed information about the mix is placed at the selected point in the CAD graphic.
Hatch Area		If this option is toggled on, a user-defined hatch is placed in the plant mix area but it does not place hatches in void regions.


Place Plant Mix Dialog Box Definitions

Option	Icon	Function
Manage		This option allows you to access your plant mix manager. This allows you to select, add, and modify the mixes.
View		This allows you to view the contents of the selected mix.
CAD Settings		This icon allows you to select symbol color, layer name, line type, and width.
Text Settings		This option allows you to define the properties of the text to be inserted. Style, height, and layer information are editable as well.
Hatch Settings		This option allows you to select a hatch pattern to be inserted into the mix area.
Place Mix		Click on this button to start the placement of the plant mix in the design.

Plant Mix Manager

LANDSCAPE DESIGN ➤ MATERIALS ➤ PLANT MIX ➤ PLANT MIX MANAGER

The Plant Mix Manager displays all of the groups and mixes that are added.

 Once a plant mix is added, it is available to you for all projects.

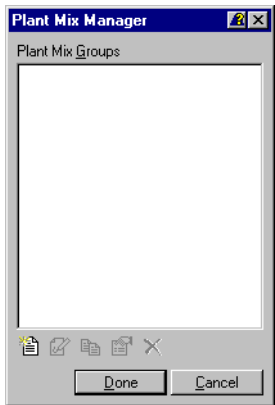







Figure 5-14 Plant Mix Manager Dialog Box

Plant Mix Manager Dialog Box Definition

<i>Option</i>	<i>Icon</i>	<i>Function</i>
Plant Mix Groups		This lists the plant mix groups that are currently available.
New		Clicking on this icon allows you to add a new Plant Mix.
Modify		Clicking on this icon allows you to modify the Plant Mix.
Copy		Clicking on this icon allows you to copy a Plant Mix.
Properties		Clicking on this icon displays information about the Plant Mix.
Delete		Clicking on this icon allows you to delete the Plant Mix.

New Mix/Group

When you click on the New Mix/Group icon in the Plant Mix Manager dialog box (Figure 5-14 on page 55) the Landscape Design dialog box (below) displays allowing you to specify if you would like to create a new group or a new mix.



Figure 5-15 Landscape Design Dialog Box

Landscape Design Dialog Box Definitions

<i>Option</i>	<i>Function</i>
New Group	Turning this radio button on enables you to add a new group to the plant mix manager.
New Mix	Turning this radio button on enables you to add a new mix to the selected group.

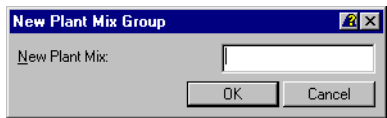


Figure 5-16 New Plant Mix Group Dialog Box

New Plant Mix Group Dialog Box Definition

Option	Function
New Plant Mix	This edit field enables you to type in a new group or mix name, depending on the option selected.

Edit Plant Mix

The Edit Plant Mix command dialog box displays the plant information that is currently in the plant mix.

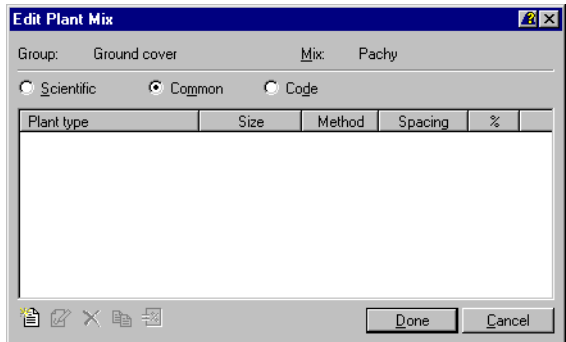







Figure 5-17 Edit Plant Mix Dialog Box

Edit Plant Mix Dialog Box Definitions

Option	Icon	Function
Scientific		Turn this radio button on to display the added plants in alphabetical order based on the scientific name.
Common		Turn this radio button on to display the added plants in alphabetical order based on the common name.
Code		Turn this radio button on to display the added plants in alphabetical order based on the code.
Plant type		This option allows you to add a Plant type.
Size		This allows you to determine a size for your Plant type.
Method		This option allows you to select the method for the Plant type.
Spacing		This option defines the spacing used in the Plant type.
%		This displays the percentage's available.
New		Clicking on this icon allows you to add a new Plant Mix.
Modify		Clicking on this icon allows you to modify the Plant Mix.

Edit Plant Mix Dialog Box Definitions

<i>Option</i>	<i>Icon</i>	<i>Function</i>
Delete		Clicking on this icon allows you to delete a Plant Mix.
Copy		Clicking on this icon allows you to copy a Plant Mix.
Divide % Equally		Click on this icon to divide the number of plant types in the mix by 100 and change the percentage appropriately.

Edit Plant

The Edit Plant dialog box allows you to define the plant name, plant size, spacing method, spacing, and percentage of mix.

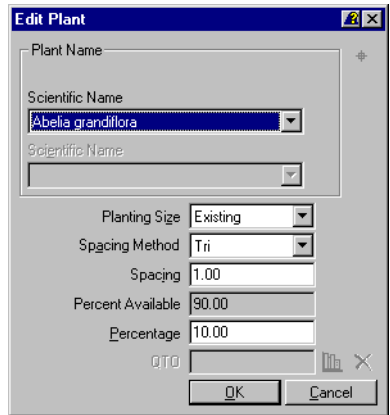




Figure 5-18 Edit Plant Dialog Box

Edit Plant Dialog Box Definitions

<i>Option</i>	<i>Icon</i>	<i>Function</i>
Scientific Name		Select a scientific name from the plant database.
Planting Size		Select a size from this drop list or you may type one.
Spacing Method		Select the method you would like to use for the plant spacing: Triangular, Square, or Area.
Spacing		This value defines the spacing used in the plant mix calculation.
Percentage Available		This field displays the unused percentage available.
Percentage		Type the percentage desired between 0 and 100 in this edit field.
QTO		This field allows you to tag the plant with a Quantity Takeoff item ID number.

Edit Plant Dialog Box Definitions

Option	Icon	Function
Library		This icon allows you to create or modify the plant.
Delete		This icon allows you to delete the plant.

QuickSteps

Use the following steps to work with the Plant Mix command.

- 1. Select Materials → Plant Mix.**
The Place Plant Mix dialog box (Figure 5-13 on page 54) displays.
- 2. Click on the Plant Mix Manager icon.**
The Plant Mix Manager dialog box (Figure 5-14 on page 55) displays.
- 3. Click on the New Mix/Group icon.**
The Landscape Design dialog box (Figure 5-15 on page 56) displays.
- 4. Select the New Group option and click on OK.**
The New Plant Mix Group dialog box (Figure 5-16 on page 56) displays.
- 5. Type a new group name, for example `ground cover`, and click on OK.**
The Plant Mix Manager dialog box displays again with the new group listed.
- 6. Select the new group from the list.**
- 7. Click on the New Mix/Group icon.**
The Landscape Design dialog box (Figure 5-15 on page 56) displays.
- 8. Turn the New Mix radio button on and click on OK.**
The New Plant Mix Group dialog box (Figure 5-16 on page 56) displays.
- 9. Type a mix name, for example, `pachy`, and click on OK.**
The Plant Mix Manager dialog box displays again.
- 10. Click on the Modify Mix icon.**
The Edit Plant Mix dialog box (Figure 5-17 on page 57) displays.
- 11. Click on the New Plant icon.**
The Edit Plant dialog box (Figure 5-18 on page 58) displays.
- 12. Select a plant from the list.**
- 13. Fill in all of the appropriate edit fields.**

14. Click on OK.

The Edit Plant Mix dialog box displays again.

15. Click on the Done button.

The Plant Mix Manager dialog box displays again.

16. Click on the Done button again.

The Place Plant Mix dialog box (Figure 5-13 on page 54) displays.

17. Click on the Add Area button.

You are prompted to select objects.

18. Select enclosed areas in which to place the plant mix.

19. Toggle on Place Label and Place Table.

20. Click on the Place Mix button.

You are prompted to select a label point graphically.

21. Select the point where the label should be displayed in the CAD graphic.

You are prompted to select a point for the mix table graphically.

22. Select an appropriate spot in the CAD graphic for the table to display.

23. Once the table and label are placed, click on the Close button.

Example

The following is an example of the Plant Mix command.

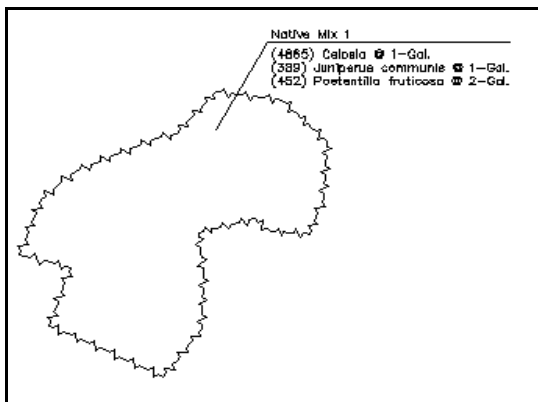


Figure 5-19 Plant Mix Example

Plant Table



LANDSCAPE DESIGN ➤ MATERIALS ➤ PLANT TABLE

KEY-IN COMMAND: `ldtable`

ICON: 

The Plant Table command is used to generate a plant table or legend on the CAD graphic. You can determine what information you would like to see appear on the table. The table is divided into subcategories such as Broadleaf trees, Conifers, Shrubs, and Ground covers, based upon the layer/level that the symbols were inserted on.

Plant tables or legends are often used to show plant names in a single place, rather than all over the drawing. On the drawing itself, you may simply identify a plant with an alias, such as T-1 for tree number one. In the plant table, T-1 is then identified as being an “Acer Rubrum at 15 Gallon.” Other times a table is used to identify a plant by its scientific or common name, if only one was used on the CAD graphic previously. For example, a plant may be labeled on the drawing as a Red Maple, and in the plant table, both the common name of Red Maple and the scientific name of Acer Rubrum are shown.

-  *The height of the plant symbols and the text in your table are controlled via the CAD Properties icon.*
-  *Plant tables are generated in pieces and plants selected by layer/level in order to have the plants grouped by trees, shrubs, ground covers, etc., rather than creating one large table.*

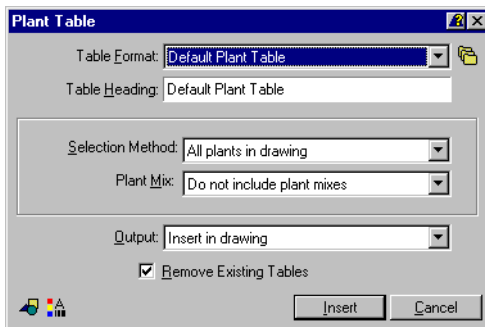




Figure 5-20 Plant Table Dialog Box

Plant Table Dialog Box Definitions

Option	Icon	Function
Table Format		This drop list enables you to preset layouts for your plant table. These can be different formats for different occasions.
Table Heading		Type in a name as you would like it to display at the top of the plant mix.
Selection Method		This drop list is the selection of plants to include in the table. You are prompted to create the selection set when you click on OK.
Plant Mix		This drop list includes all the defined Plant Mixes in your drawing.
Output		From this drop list, select how you would like the information relayed. You have the option of placing the output in the drawing, or exporting it out into one of the following formats; an Excel (.XLS), comma separated (.CSV), or a text (.TXT) file.
Remove Existing Tables		When toggled on, this option removes existing tables.
CAD Settings		This icon allows you to select symbol color, layer name, line type, and width. The is for the symbol as well as the optional tick mark.
Text Settings		This icon allows you to define the properties of the text to be inserted. Style, height, and layer information are editable as well.
Insert		The Insert button acts the same as Add, but adds the information item under the highlighted item in the output field. This allows you to control order.
Cancel		This button terminates the Plant Table command.

QuickSteps

Use the following steps to generate a plant table.

1. Select Materials → Plant Table.

The Plant Table dialog box (Figure 5-20 on page 61) displays.

2. Select a table format from the drop list or create a new format.

3. Type in the desired name of the table in the Table Heading edit field.

4. Choose a selection method, either Selection All Plants in Drawing, Selection Set, Plants on Layers/Levels, or Entire Project from the drop list.

5. Select the Plant Mix option of your choice.

6. Select Insert in Drawing in the Output field.

7. Make sure that Remove Existing Tables from the drawing is toggled on and select Insert.

- A. **Plants on Layers/Levels:** If you selected this method of selection, you are now prompted to select the layers/levels that you wish to have the information taken from.

- B. **Selection Set/All Plants**: If you selected this method of selection, you are now prompted to select the plants that you wish to have included in the table.

You are prompted to select the insertion point of the table.

8. **Select the upper left corner of the table.**

Launch Database

LANDSCAPE DESIGN ⇨ MATERIALS ⇨ LAUNCH DATABASE

KEY-IN COMMAND: `lddatabase`



ICON:

The Launch Database command is used to run the Plant Database program from within the ***Landscape Design*** module.

See the ***Plant Database*** manual for details of this command.

TOOLS

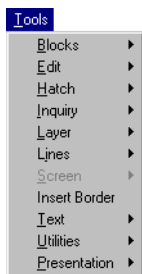


Figure 6-1 Tools Menu

In this chapter:

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CHAPTER

6

Blocks

LANDSCAPE DESIGN ➤ TOOLS ➤ BLOCKS

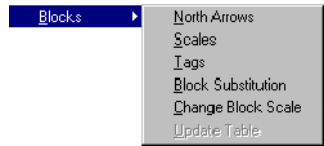


Figure 6-2 Blocks Submenu

North Arrows

LANDSCAPE DESIGN ➤ TOOLS ➤ BLOCKS ➤ NORTH ARROWS

KEY-IN COMMAND: `ldinsetnarrow`



ICON:

The North Arrows command allows you to insert various symbols representing a North Arrow in the drawing. North Arrows are needed to reference directions and angles that may be provided on items such as property lines or sidewalks.

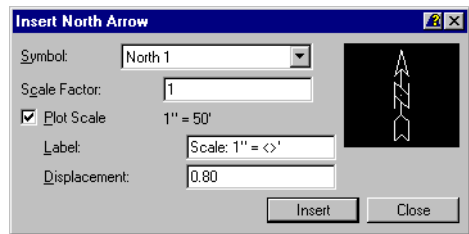


Figure 6-3 Insert North Arrow Dialog Box

Insert North Arrow Dialog Box Definitions

Option	Function
Symbol	This drop list allows you to select a North Arrow by name.
Scale Factor	This defines the size of the symbol.
Plot Scale	This is the scale in which the drawing is plotted.
Label	This is the description of the scale.

Insert North Arrow Dialog Box Definitions

Option	Function
Displacement	This is the distance of the label from the North Arrow.

QuickSteps

To insert a North Arrow, complete the following steps.

1. **Select Tools → Blocks → North Arrows.**
The Insert North Arrow dialog box (Figure 6-3 on page 66) displays.
2. **Select the North Arrow to use from the drop list.**
3. **Enter the Scale Factor for the North Arrow.**
4. **Toggle on Plot Scale if desired.**
5. **Click on Insert and position the arrow in the CAD graphic.**

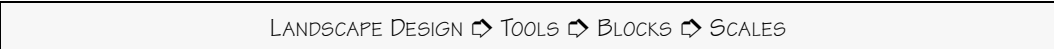
Example

The following is a North Arrow example.



Figure 6-4 North Arrow

Scales



KEY-IN COMMAND: `ldinsertscale`



The Scales command allows you to insert various symbols representing bar scales into the drawing and to specify the drawing scale. The drawing scale is useful when plotting

hard copies of the drawing. When referencing the drawing sheet you can use a scale to measure and verify distances in the field.

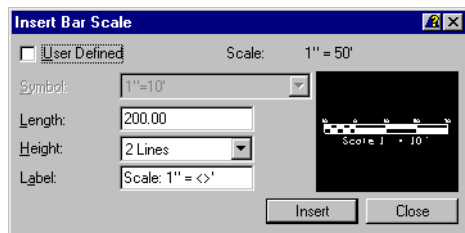


Figure 6-5 Insert Bar Scale Dialog Box

Insert Bar Scale Dialog Box Definitions

Option	Function
User Defined	Toggle this option on if you want to place a User Defined bar scale. This enables the symbols drop list and disables the length, height, and label fields. If this toggle is on, the length, height, and label are used to construct a bar scale at the time you click on the insert button.
Scale	This is the scale in which the drawing is plotted.
Symbol	Select the symbol from a variety of predefined scales.
Length	This edit field allows you to specify the length of the bar scale that would be placed when you have the User Defined option toggled off.
Height	This drop list allows you to specify how many lines are used for the bar scale when you have the User Defined option toggled off. The available options are one or two lines.
Label	This edit field allows you to specify how you want the bar scale to be labeled when it is placed when the User Defined option is toggled off.

QuickSteps

1. **Select Tools → Blocks → Scales.**
The Insert Bar Scale dialog box (above) displays.
2. **Click on the desired Scale symbol or name.**
3. **Complete Length, Height, and Label information.**
4. **Click on Insert and position the symbol in the CAD graphic.**

Example

The figure below is an example of the Insert Scale command.

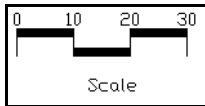


Figure 6-6 Scale Example

Tags

LANDSCAPE DESIGN ➤ TOOLS ➤ BLOCKS ➤ TAGS

KEY-IN COMMAND: `ldinserttag`

The Tags command allows you to insert various symbols representing tags into the drawing, and in some instances, to specify text associated with the tags. A tag could be used to call out a specific detail of an item. For example, when laying out a sidewalk, it may go between an existing grove of trees. You may wish to place a tag stating that on-site modification may be needed to avoid the drip line.

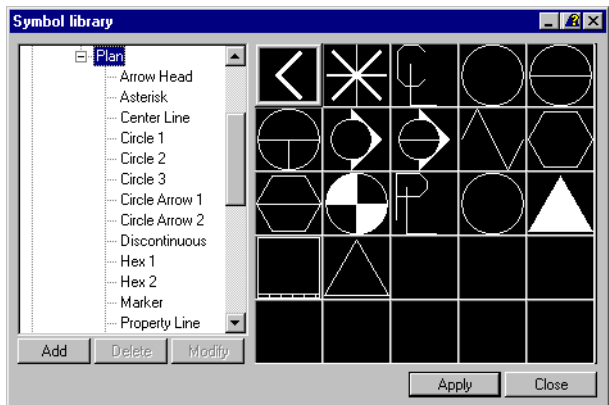


Figure 6-7 Symbol Library Dialog Box

Symbol Library Dialog Box Definitions

Option	Function
List box	This box allows you to select the desired tag symbol by name.
Symbol	This display allows you to graphically select the desired tag symbol.

QuickSteps

1. Select Tools → Blocks → Tags.
2. Select the desired tag and click on Apply.
3. Graphically insert the tag into the CAD graphic.

Example

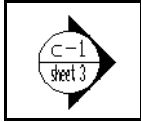


Figure 6-8 Tags Example

Block Substitution

LANDSCAPE DESIGN ⇨ TOOLS ⇨ BLOCKS ⇨ BLOCK SUBSTITUTION

KEY-IN COMMAND: `ldblocksubst`



ICON:

The Block Substitution command allows you to exchange one drawing symbol for another. This can be extremely useful when doing presentations. The drawing can have plan view symbols to speed up regeneration and drafting time. Then, as needed, it can quickly be converted into a 3-D plan to view during presentations, then converted back to plan view to make any changes or revisions.

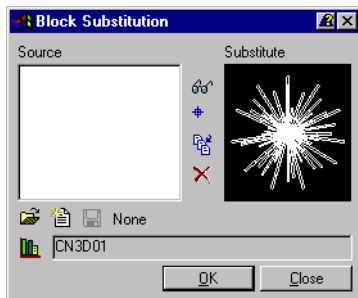










Figure 6-9 Block Substitution Dialog Box

Block Substitution Dialog Box Definitions

Option	Icon	Function
Source		This is a list of all current blocks in the drawing. Highlight the block(s) that you want substituted.
Substitute		This is a graphic preview of the symbol which is substituted for the blocks which were highlighted in the Source list.
Open File		Click on this icon to open an existing file.
New File		Click on this icon to open a new file.
Save		Click on this icon to save the file.
Symbol Library		This icon allows you to browse and select a library to load to select a desired block to use for a substitute. Select the desired block and click on Apply.
Hi lite Block in Drawing		This highlights the chosen block(s) in the source column in the drawing.
Select Block		This option allows you to graphically select blocks to substitute.
Add to subfile		This adds the current substitution to the file. You must do this in order to perform the desired substitution.
Remove from subfile		This icon removes the current substitution relation from the current subfile.

QuickSteps

1. Select Tools → Blocks → Block Substitution.

The Block Substitution dialog box (Figure 6-9 on page 70) displays with the blocks existing in your CAD graphic which are available for substitution.

2. Click on the New Subfile icon.

3. Enter a subfile name, for example `mysub`, and click on Save.

4. Highlight the block(s) under the source column for which you wish to have a substitution.

5. Click on the Symbol Library icon in the bottom left corner of the dialog box.


6. Select a substitute block from the Symbol Library and click on Apply.

The selected substitute displays in the Block Substitution dialog box (Figure 6-9 on page 70).

7. Click on the Add to Subfile icon.

8. Click on OK.

The source blocks are replaced by the newly selected block.

 This utility substitutes CAD symbology only – attributes of the insertion remain the same.

Example

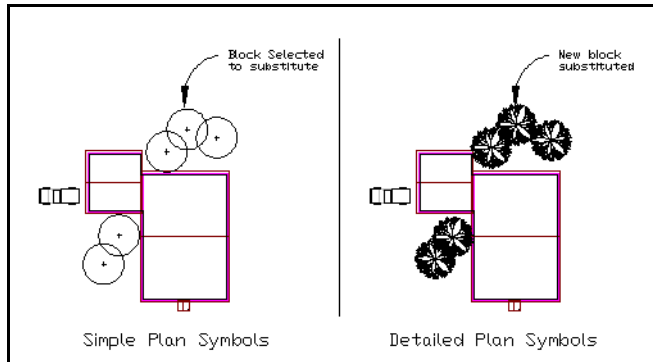


Figure 6-10 Substitute Example


Change Block Scale

LANDSCAPE DESIGN ➤ TOOLS ➤ BLOCKS ➤ CHANGE BLOCK SCALE

KEY-IN COMMAND: `ldblockscale`

ICON: 

The Change Block Scale command allows you to change the X, Y, Z scale of selected blocks. This command can be used when you wish to change the height of a tree symbol. By using this command, the height can easily be modified without having to erase it and reinsert the symbol.

-  Typically you want the X and Y scale factor to correspond to each other. This is also a quick way to change the height of a tree symbol without having to reinsert it.

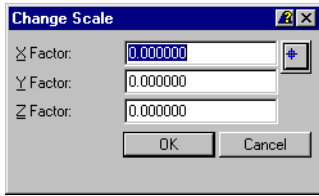



Figure 6-11 Change Scale Dialog Box

Change Scale Dialog Box Definitions

Option	Icon	Function
X Factor		Type a value in this field to adjust the size of the symbol in the X direction, or the width of a symbol.
Y Factor		Type a value in this field to adjust the size of the symbol in the Y direction, or the length of a symbol.
Z Factor		Type a value in this field to adjust the size of a symbol in the Z direction, or the height of a symbol.
PIC		This option allows you to graphically select blocks to modify the scale of the blocks.

QuickSteps

- Select Tools → Blocks → Change Block Scale.**
- Enter the appropriate scale changes and click on OK.**
You are prompted to select objects.
- Graphically select the desired objects and press Enter.**
The selected objects are updated with the new scaling factors.

Example

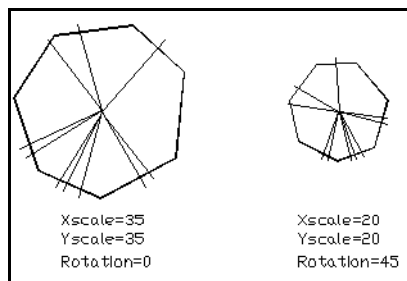


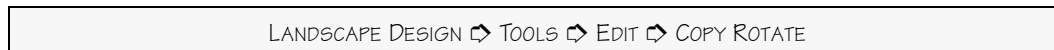
Figure 6-12 Change Scale Example

Edit



Figure 6-13 Edit Submenu


Copy Rotate



KEY-IN COMMAND: `ldcopyrotate`

ICON: 

The Copy Rotate command allows you to select an object and copy it to a different location and then rotate the object without having to run two separate commands. This command is extremely useful in locating plant material. A single symbol may be inserted, then copied and rotated to all other locations using this command.

 Use this command to give plant symbols more of a varied or random look.

QuickSteps

1. **Select Tools → Edit → Copy Rotate.**

You are prompted to select objects.

2. **Graphically select the objects to be copied and rotated and press Enter.**

You are prompted to select the base point.

3. **Graphically select a base reference point from where you wish the object to be copied.**

You are prompted for the second point.

4. **Graphically select the location where you wish the object(s) to be copied.**

You are prompted for the rotation angle.

5. **Graphically select the new rotation for the object(s).**

The object(s) are copied and rotated to the new settings.

Example

This example shows you how to copy a tree symbol from one location to another and rotate it 270 degrees.

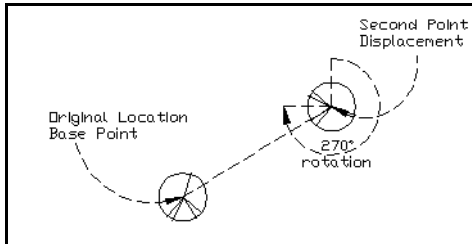


Figure 6-14 Copy Rotate Example

Move Rotate

BASE PLAN ➤ TOOLS ➤ EDIT ➤ MOVE ROTATE

KEY-IN COMMAND: `ldmoverotate`



The Move Rotate command allows you to select an object and move it to a different location and then rotate the object without having to run two separate commands. For

example, you may have created a building footprint utilizing ortho and oriented the house at 90 degree angles; you can then use this command to move it and rotate it to its correct position on the site.

QuickSteps

1. Select Tools → Edit → Move Rotate.

You are prompted to select objects.

2. Graphically select the objects to be moved and rotated and press Enter.

You are prompted to select the base point.

3. Graphically select the base point from which you wish the object to be moved.

You are prompted for the second point.

4. Graphically select the new location for the object(s).

You are prompted for the rotation angle.

5. Graphically select the new rotation for the object(s).

The object(s) are moved and rotated to the new settings.

Example

The following is an example of moving a tree symbol from its original location to a new location and rotating it 270 degrees.

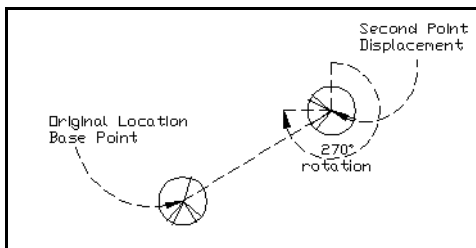


Figure 6-15 Move Rotate Example

Multi Copy


BASE PLAN ⇨ TOOLS ⇨ EDIT ⇨ MULTI COPY

KEY-IN COMMAND: `ldmulticopy`



ICON:

The Multi Copy command allows you to make multiple copies of an object or objects. For example, you may have a parking lot on the site and wish to have car symbols placed in the stalls. You could insert a single car and use this command to copy it to multiple locations without having to run the insertion routine every time.

 *This command is useful for placing multiple copies of the same plant type.*

QuickSteps

1. **Select Tools → Edit → Multi Copy.**
You are prompted to select objects.
2. **Graphically select the objects to be copied and press Enter.**
You are prompted to enter the base point.
3. **Graphically select the point to be copied from.**
You are prompted for the second point.
4. **Graphically select the new locations for the objects.**

Example

This example shows you how to copy a tree symbol from its original location to several other locations.

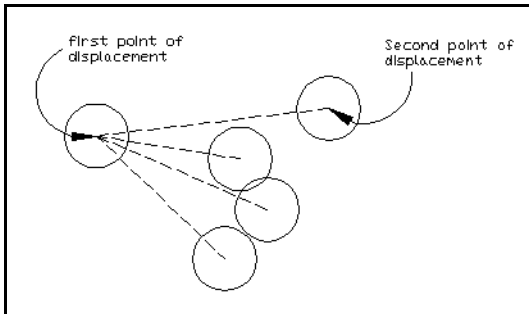


Figure 6-16 Multi Copy Example

Multi Scale

BASE PLAN ➤ TOOLS ➤ EDIT ➤ MULTI SCALE

KEY-IN COMMAND: `ldmultiscale`

ICON: 

This command is useful in changing the crown diameter of multiple plant symbols without losing the insertion location.

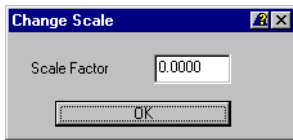


Figure 6-17 *Change Scale Dialog Box*

Change Scale Dialog Box Definition

<i>Option</i>	<i>Function</i>
Scale Factor	Type the desired scale factor in this edit field. A value of 1.0 causes the symbols to remain the same size; values less than 1 but greater than 0 cause the symbols to decrease in size while values greater than 1 cause the symbols to increase in size.

QuickSteps

1. **Select Tools ➔ Edit ➔ Multi Scale.**

The Change Scale dialog box (above) displays.

2. **Enter a scale factor desired in the edit field and click on OK.**

You are prompted to select objects.

3. **Graphically select the objects to be scaled and press Enter.**

The selected objects are scaled from their insertion points.

Example

The following is an example of scaling multiple symbols half the original size, without losing the insertion point of each symbol.

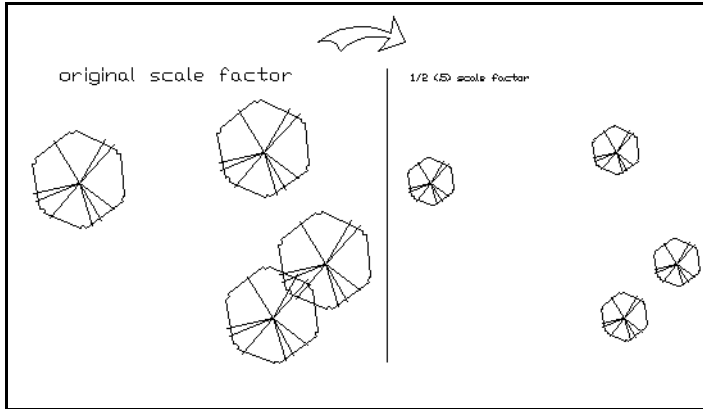



Figure 6-18 Scale Factor Example

Reverse Polyline

LANDSCAPE DESIGN ➤ TOOLS ➤ EDIT ➤ REVERSE POLYLINE

KEY-IN COMMAND: `ldrevsmart`

The Reverse Polyline command reverses the direction of a polyline, line, or arc segment. This command is particularly useful if contour labeling text comes in upside down. You can run the reverse polyline command and then rerun the label command and the labels come in the correct direction.

 Use this command if contour labels come in upside down.

QuickSteps

1. Select Tools → Edit → Reverse Polyline.

You are prompted to select a line, a polyline, or an arc to reverse direction.

2. Graphically select the desired objects and press Enter.

The direction of the selected object(s) are reversed.

Example

Below is an example of reversing the direction of a polyline so that the text label comes in oriented to the desired direction.

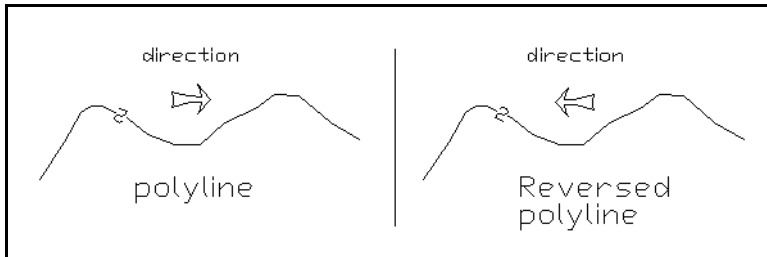


Figure 6-19 Reverse Polyline Example

Hatch

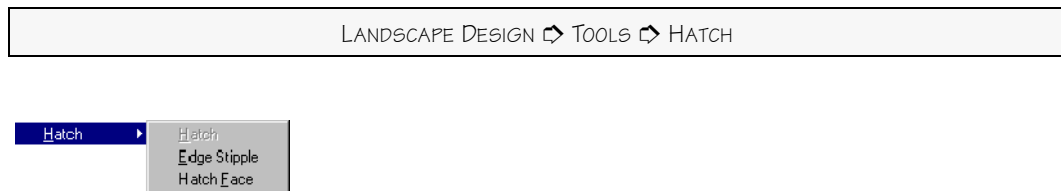


Figure 6-20 Hatch Submenu

Edge Stipple



KEY-IN COMMAND: `ldstipple`

ICON: 

The Edge Stipple command is used to graphically indicate turf areas or other irregular shaped planting beds by inserting a large number of dots along the edge of the area and gradually fading to fewer and fewer dots in the center. This technique is often used for rendering plan view site plans.

- ✎ Always use a closed polyline as the border of your stippled area. A polyline that is not closed may work, but the results are unpredictable. Use simple areas with polylines that have not been splined. Do not use an area that is very small in one corner and very large in another area (use two polylines instead), as you do not want the offsets to overlap and give you poor results.
- ✎ Do not use a splined polyline.

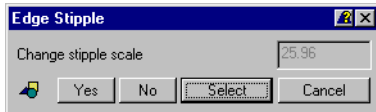



Figure 6-21 Edge Stipple Dialog Box

Edge Stipple Dialog Box Definitions

Option	Icon	Function
Change stipple scale		You may enter a scale of stippling effect here or accept the stipple scale that displays. A higher number produces less dense stipple.
CAD Settings		This icon allows you to select symbol color, layer name, line type, and width. This is for the symbol as well as the optional tick mark.

QuickSteps

- Draw a closed polyline to define the area to be stippled.**
- Select Tools → Hatch → Edge Stipple.**
The Edge Stipple dialog box (above) displays.
You are prompted to select a closed polyline.
- Select a closed polyline.**
You are prompted to select a point.
- Select a point near the center of the area to be stippled.**
The preview lines are pre-inserted into your drawing.
- Click on No if the result is acceptable. Click on Yes if you want to modify the spacing between the dots.**
If Yes is chosen, you are prompted to select a point.
After the new point is selected the command loops back to step 4, allowing you to retry until you are satisfied. Once No is selected, the stippling is inserted into your drawing.

Example

The following is an example of the Edge Stipple command.

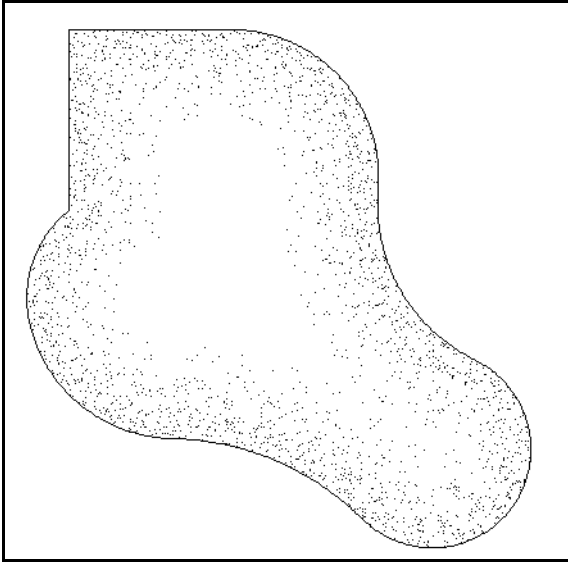


Figure 6-22 Edge Stipple Example


Hatch Face

LANDSCAPE DESIGN ➤ TOOLS ➤ HATCH ➤ HATCH FACE

KEY-IN COMMAND: `ldhatchface`

ICON: 

The Hatch command allows you to hatch areas with different patterns to represent different elements. For example, you could have several elements in the site that cannot be represented by blocks. You can create a closed polyline and apply a hatch pattern to represent the desired material, i.e., turf concrete paving, etc.

-  *Make sure that you have a closed polyline or a bounded area in the drawing before running this command.*

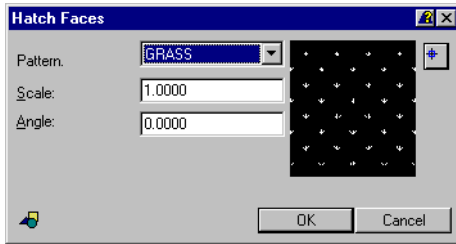




Figure 6-23 Hatch Faces Dialog Box

Hatch Faces Dialog Box Definitions

<i>Option</i>	<i>Icon</i>	<i>Function</i>
Pattern Preview		This is a graphic display of the selected hatch pattern.
PIC		This icon allows you to graphically select blocks to substitute.
Pattern		Enter the pattern name or click the hatch button to graphically select a pattern.
Scale		This controls the scale of the hatch pattern. Smaller numbers make a more dense hatch.
Angle		This controls the angle of the hatch pattern. Zero degrees is to the right.
CAD Settings		This icon allows you to select symbol color, layer name, line type, and width. This is for the symbol as well as the optional tick mark.

QuickSteps

1. Select Tools → Hatch→ Hatch Face.

The Hatch Faces dialog box (above) displays. In the pattern edit field, select a hatch pattern.

2. In the Scale edit field enter a scale for the pattern, i.e. . 5.

3. In the Angle edit field, enter an angle (if desired) for the pattern, i.e. 45.

4. Click on OK.

You are prompted to select the closed polyline defining the area to be hatched.

5. Select a closed polyline.

The selected area is hatched.

Example

The following is an example of the Hatch Faces command.

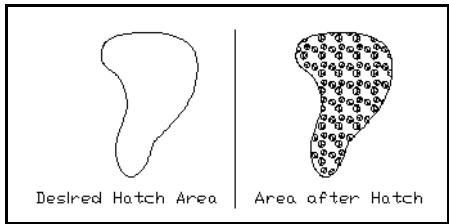


Figure 6-24 Hatch Area Example

Inquiry



Figure 6-25 Inquiry Submenu

Running Distance



KEY-IN COMMAND: `ldsumrun`

ICON:

The Running Distance command allows you to select multiple points in the drawing and totals the distance for all points selected as well as each individual selection. This

command is useful for finding the total distance of multiple objects, such as edging for planter beds.

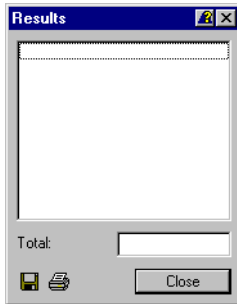




Figure 6-26 Running Distance Results Dialog Box

Running Distance Results Dialog Box Definitions

<i>Option</i>	<i>Icon</i>	<i>Function</i>
Total		Total is the overall distance of selected points.
Save Running Distance		Click on the Save icon to save the running distance results to a file.
Print		Click on the Print icon to print the running distance results.

QuickSteps

1. Select Tools → Inquiry → Running Distance.

The Running Distance Results dialog box (above) displays. You are prompted to select a starting point.

2. Graphically select a starting point.

You are prompted to select the next point. Repeat this process until the desired number of points are selected.

The Running Distance Results dialog box displays each segment's running total as well as the overall total.

Example

The following is an example of the Running Distance command.

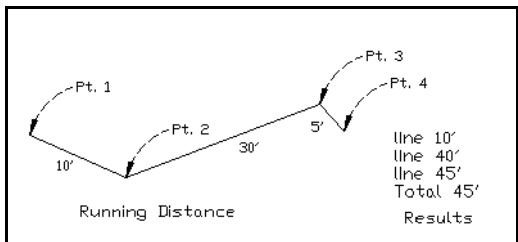


Figure 6-27 Running Distance Example

Sum Lines

LANDSCAPE DESIGN ➤ TOOLS ➤ INQUIRY ➤ SUM LINES

KEY-IN COMMAND: `ldsumline`

The Sum Lines command allows you to select multiple line segments and totals the distance for all segments, as well as individual segments. This command can be used for finding the total length of items in the drawing represented by line segments such as driveways or sidewalks.

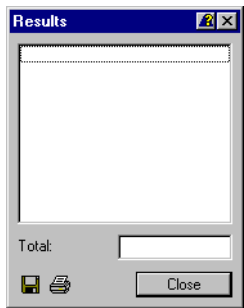




Figure 6-28 Sum Lines Results Dialog Box

Sum Lines Results Dialog Box Definitions

Option	Icon	Function
Total		The Total edit field displays the total distance of all selected lines.
Save Sum Line Results		Click on the Save Sum Line Results icon to save the results to a file.

Sum Lines Results Dialog Box Definitions

Option	Icon	Function
Print		Click on the Print icon to print the results.

QuickSteps

1. **Select Tools → Inquiry → Sum Lines.**
You are prompted to select objects.
2. **Graphically select the desired line segments and press Enter.**
The number of line segments, a running total, and the total length display.

Example

The following is an example of the Sum Lines command.

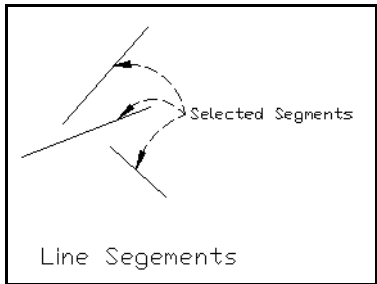


Figure 6-29 Sum Lines Example

Sum Lines by Layer/Level

LANDSCAPE DESIGN ➤ TOOLS ➤ INQUIRY ➤ SUM LINES BY LAYER/LEVEL

KEY-IN COMMAND: `ldsumlay`

The Sum Lines by Layer/Level command allows you to select an object on a layer/level and totals the line segments and polyline segments on the selected object's layer/level. This command is useful if there are a large number of items that need to be totaled and

they are on the same layer/level. This command is also useful because there is less chance of missing an item to be totaled.

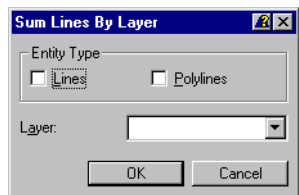


Figure 6-30 Sum Lines By Layer/Level Dialog Box

Sum Lines By Layer/Level Dialog Box Definitions

Option	Function
Lines	Turn on this toggle if you wish to total the line segments on the selected object's layer/level.
Polylines	Turn on this toggle if you wish to total the polyline segments on the selected object's layer/level.
Layer/Level	This is the layer/level you wish to utilize for line/polyline length summaries.

QuickSteps

- 1. Select Tools → Inquiry → Sum Lines by Layer/Level.**
The Sum Lines By Layer/Level dialog box (above) displays. You are prompted:
Select Object on Layer/Level to Sum Lines
- 2. Graphically select an object on the desired layer/level and click on OK.**
The number and distance of each line segment displays, as well as the total length.

Example

The following is an example of the Sum Lines by Layer/Level command.

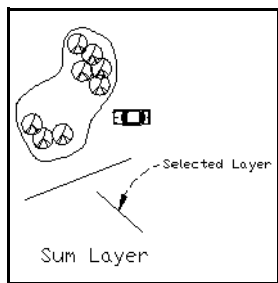


Figure 6-31 Sum Lines by Layer/Level Example

Sum Area by Layer/Level

LANDSCAPE DESIGN ➤ TOOLS ➤ INQUIRY ➤ SUM AREA BY LAYER/LEVEL

KEY-IN COMMAND: `ldsumarea`

The Sum Area by Layer/Level command allows you to select an object on a layer/level and totals the area of all closed polylines on the object's layer/level. This command is useful for finding the total area of all polylines on a selected layer/level, such as planter beds or turf areas.

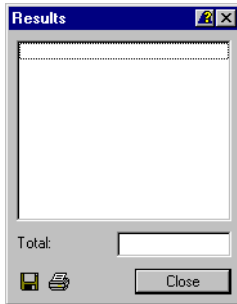




Figure 6-32 Sum Area by Layer/Level Results Dialog Box

Sum Area by Layer/Level Results Dialog Box Definitions

Option	Icon	Function
Area segments		This lists all border length segments surrounding the area.
Total		This is the total area of all areas enclosed by the selected borders.
Save Sum Line Results		Click on the Save Sum Line Results icon to save the results to a file.
Print		Click on the Print icon to print the results.

QuickSteps

1. **Select Tools → Inquiry → Sum Area by Layer/Level.**

You are prompted:

Select Object on Layer/Level to Sum area

2. **Graphically select an object on the desired layer/level.**

The number, area, and perimeter of each closed polyline display in the Sum Area by Layer/Level Results dialog box (above), as well as the total area.

Example

The figure below shows an example of the Sum Area by Layer/Level command.

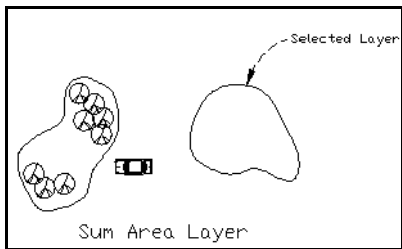


Figure 6-33 Sum Area by Layer/Level Example

Angle Between Lines

LANDSCAPE DESIGN → TOOLS → INQUIRY → ANGLE BETWEEN LINES

KEY-IN COMMAND: `ldsumangle`

The Angle Between Lines command allows you to select two line segments and gives the angle between the two selected lines.

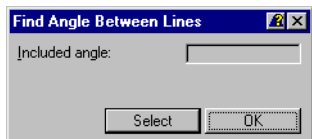


Figure 6-34 Find Angle Between Lines Dialog Box

Find Angle Between Lines Dialog Box Definitions

Option	Function
Included angle	The angle between the two lines selected are reported in this edit box.
Select first line/ Select second line	This read-only field prompts you to select the lines between which you wish to find the angle.

QuickSteps

1. Select Tools → Inquiry → Angle Between Lines.

The Find Angle Between Lines dialog box (above) displays. You are prompted to select the first line.

2. Click on Select to graphically select the first line.

3. Click on Select to graphically select the second line.

The angle between the two lines displays in the Included angle edit field.

Example

The following is an example of the Find Angle Between Lines command.

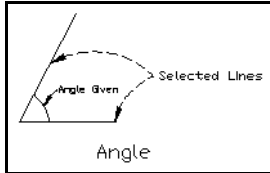



Figure 6-35 Angle Between Lines Example

Legend/Schedule

LANDSCAPE DESIGN ⇨ TOOLS ⇨ INQUIRY ⇨ LEGEND/SCHEDULE

KEY-IN COMMAND: `ldlegend`

The Legend/Schedule command allows you to create a catalog listing of selected items in the drawing and have a graphic, as well as text notes, to describe the items. This command is useful for labeling areas that are not represented by plant material or irrigation heads, such as hatch patterns, benches, etc.

 Use this command to create a listing of items in the drawing that are not representing plant materials.

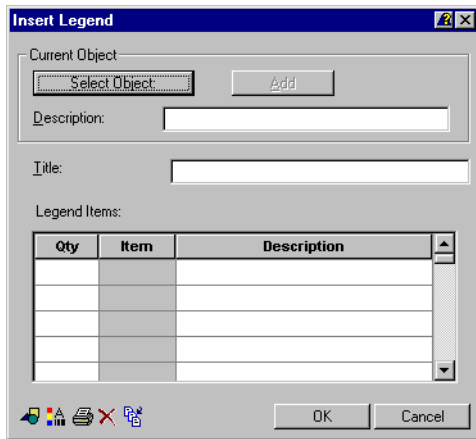







Figure 6-36 Insert Legend Dialog Box

Insert Legend Dialog Box Definitions

<i>Option</i>	<i>Icon</i>	<i>Function</i>
Select Object		This button displays the prompt for you to pick an object in the CAD graphic to include in the legend.
Add		After you select the object in the CAD graphic, click on Add to add the object to the legend.
Description		Type a description to associate to the object in the legend.
Title		Type a title for your legend here.
Legend items		<p>Qty: Qty is the number of occurrences of the selected object found in the CAD graphic.</p> <p>Item: The selected object in the CAD graphic is listed in the Item edit field.</p> <p>Description: This is the user-defined description of an object.</p>
CAD Settings		This icon allows you to select symbol color, layer name, line type as well as the width.
Text Settings		This icon allows you to define the properties of the text to be inserted. Style, height, and layer information are editable as well.
Print		Click on the Print icon to print the results.
Delete		Click on the Delete icon to delete an item.

Insert Legend Dialog Box Definitions

<i>Option</i>	<i>Icon</i>	<i>Function</i>
Insert into CAD graphic		Click on this icon to insert the legend into your CAD graphic.

QuickSteps

1. **Select Tools → Inquiry → Legend/Schedule.**

The Insert Legend dialog box (Figure 6-36 on page 92) displays.

2. **Type a description of a block that exists in your drawing (a non-plant), i.e. bench.**
3. **Click on the Select Object button and select this block in your CAD graphic.**
4. **Click on the Add button.**
5. **Type a title for the legend and click on the Insert into CAD graphic icon.**

You are prompted to select the insertion point for the legend.

6. **Graphically pick where the upper left corner of the legend is to be placed.**

The legend is placed in the drawing.

Example





Legend		
Qty	Item	Description
5		Bench
		Cobble Stone
		Grass
2		Light Post

Figure 6-37 Legend Example

Layer/Level

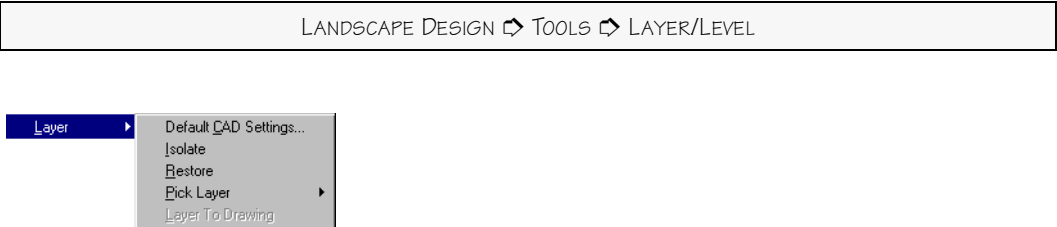


Figure 6-38 Layer/Level Submenu


Default CAD Settings




KEY-IN COMMAND: `ldcadset`



The Default CAD Settings command allows you to set the default CAD settings for the majority of the objects that are constructed. There is a tree view on the left of the dialog box that divides all of the objects that are constructed in CAD by product. The CAD settings appear on the right of the area for the item that is highlighted in the tree view.

 When changing any of the highlighted item's attributes, be sure to use the Apply button before highlighting another item in the tree view.

-  These can be created into a prototype to be used in a new project. Also included in a prototype are Units, Formats, Precision, Drawing/Design File Settings, and Layer/Level Groups.

AutoCAD/IntelliCAD/Eagle Point Graphics Engine

AutoCAD/IntelliCAD/Eagle Point Graphics Engine contain the following settings: layer/level, color, linetype, width, override with active attributes, text units, plotted size/height, drawing scale, style, and use styles height.

MicroStation

MicroStation contains the following settings: level, color, linestyle, custom linestyle, weight, override with active attributes, text units, plotted size/height, design file scale, font, and use font's height.

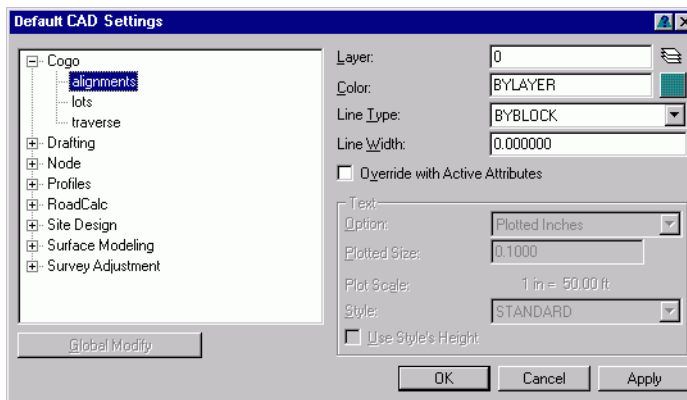




Figure 6-39 Default CAD Settings – AutoCAD/IntelliCAD/Eagle Point Graphics Engine Dialog Box

Default CAD Settings – AutoCAD/IntelliCAD/Eagle Point Graphics Engine Dialog Box Definitions

Option	Icon	Function
Tree view		This lists all of the objects that are constructed in CAD, separated by product.
Global Modify		This allows you to change the text size for all items that place text. It also changes the CAD settings to use the active attributes if Override with Active Attributes is toggled on.
Layer/Level		This is the layer/level on which the object is constructed. Click on the icon to display all current layers/levels in the drawing.
Color		This is the color that the object is constructed with. Click on the icon to display the current color palette from which to select a color.
Line Type		This is the linetype with which the object is constructed.

Default CAD Settings – AutoCAD/IntelliCAD/Eagle Point Graphics Engine Dialog Box Definitions

Option	Icon	Function
Line Width		This is the width that is available for any object that creates a polyline when it is constructed.
Override with Active Attributes		This disables the layer/level, color, linetype, and width. The active symbology of the CAD is used when the object is constructed.
Option		This is the type of text option that is used. You can choose between Leroy, Plotted Inches (Millimeters), Drawing Units, or Points.
Plotted Size/Height		This is the plotted size of the text if your text units are set to Leroy, Plotted Inches (Millimeters), or Points. This is the height if your text units are set to Drawing/Units.
Plot Scale		This displays the horizontal scale of the drawing that you have open.
Style		This is the text style that is used when text is placed into the drawing.
Use Style's Height		This uses the height that is set for the text style by the CAD package.

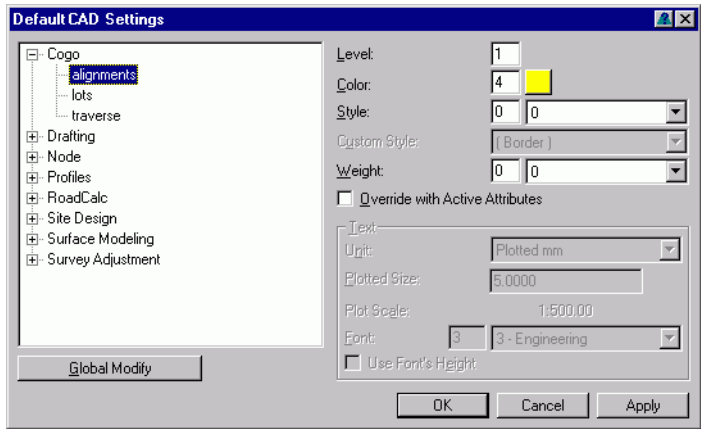


Figure 6-40 Default CAD Settings – MicroStation Dialog Box

Default CAD Settings – MicroStation Dialog Box Definitions

Option	Function
Tree view	This lists all of the objects that are constructed in CAD, separated by product.
Global Modify	This allows you to change the text size for all items that place text. It also changes the CAD settings to use the active attributes if Override with Active Attributes is toggled on.
Level	This is the level on which the object is constructed.
Color	This is the color with which the object is constructed.
Style	This is the line style with which the object is constructed. If this is set to Custom, you must enter a custom line style to be used.


Default CAD Settings – MicroStation Dialog Box Definitions

Option	Function
Custom Style	This is only available if you have set the linestyle to be custom. This is the custom linestyle that is used for the object when it is constructed.
Weight	This is the weight that the text or object uses when it is constructed.
Override with Active Attributes	This disables the level, color, linestyle, custom line style, and weight. The active symbology of the CAD is used when the object is constructed.
Unit	This is the type of text option that is used. You can choose between Leroy, Plotted Inches (Millimeters), Drawing Units, or Points.
Plotted Size/Height	This is the plotted size of the text if your text units are set to Leroy, Plotted Inches (Millimeters), or Points. This is the height if your text units are set to Drawing Units.
Plot Scale	This displays the horizontal scale of the design file that you have open.
Font	This is the text font that is used when text is placed into the design file. The weight is also used when the text is placed.
Use Font's Height	This uses the height that is set for the font by the CAD package.

Isolate

LANDSCAPE DESIGN ➤ TOOLS ➤ LAYER/LEVEL ➤ ISOLATE

The Isolate command allows you to select an object and all other layers/levels are frozen except the selected objects layer/level. This command is extremely useful for working with areas that have a lot of information and detail. You can select this command, pick an individual layer/level and that layer/level is the only one displayed. You can make any modifications or changes to that layer/level when dealing with the other information nearby. When you are finished you can select Restore Layer/Level and go back to the original layer/level settings.

 *Run the Restore Layer/Level command to return to the previous layer/level setting. If you select a layer/level other than the current layer/level to isolate you receive the message “Cannot freeze current layer/level.”*

QuickSteps

- Select Tools → Layer/Level → Isolate.**
You are prompted to select an object on the layer/level to isolate.
- Graphically select the object with the desired layer/level.**
All the layers/levels except for the selected layer/level are frozen.

Example

In the following example, a tree symbol was selected while running the Isolate command. The vehicles and house layer/level are frozen, so that only the trees are displayed.

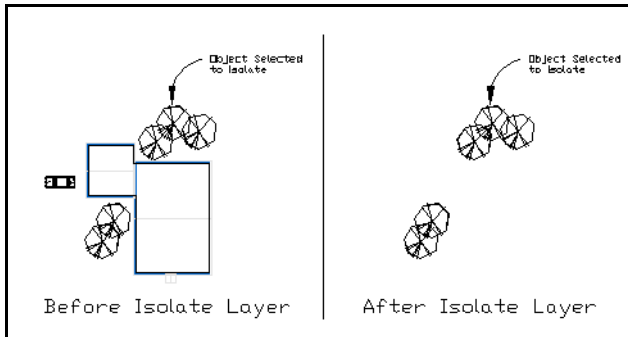



Figure 6-41 Isolate Layer/Level Example

Restore

LANDSCAPE DESIGN ➤ TOOLS ➤ LAYER/LEVEL ➤ RESTORE

The Restore command allows you to return layers/levels to the previous setting before running the Isolate command. For example, you may have run the Isolate command to make modifications to the sidewalk layer/level; now that the modifications are complete, you wish to see how the changes affect the rest of the drawing. By running the Restore command, the layer/level settings are restored.

 *You must run the Isolate Layer/Level command first. If you have not run the Isolate Layers/Levels command you receive a message that states “Must run Isolate Layer/Level command before using this command.”*

Example

Selecting Restore Layers/Levels thaws the layers/levels that were previously frozen using the Isolate Layers/Levels command.

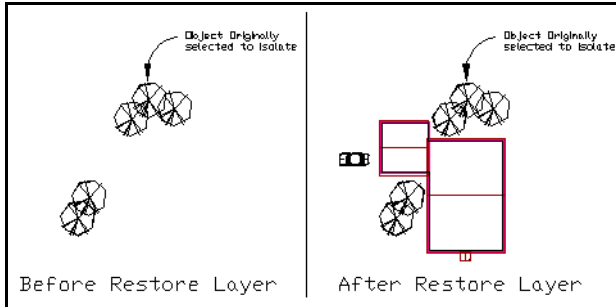


Figure 6-42 Restore Layer/Level Example

Pick Layer/Level

LANDSCAPE DESIGN ➤ TOOLS ➤ LAYER/LEVEL ➤ PICK LAYER/LEVEL

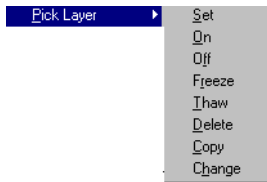


Figure 6-43 Pick Layer/Level Submenu

Set

LANDSCAPE DESIGN ➤ TOOLS ➤ LAYER/LEVEL ➤ PICK LAYER/LEVEL ➤ SET

The Pick Layer/Level – Set command sets the working, or current layer/level to the same as the object selected. For example, you may wish to work on the same layer/level that a light post is on, but cannot remember the layer/level name. Rather than taking the time to list the layer/level and then set to that layer/level, you can simply select the light post object in the drawing.

QuickSteps

1. Select Tools → Layer/Level → Pick Layer/Level → Set.

You are prompted to pick an object on the desired layer/level.

2. Select an object that contains the desired layer/level and press Enter.

You are prompted:


Current layer/level set to (selected objects layer/level).

The current layer/level becomes that of the object selected.

On

LANDSCAPE DESIGN ⇨ TOOLS ⇨ LAYER/LEVEL ⇨ PICK LAYER/LEVEL ⇨ ON


The Pick Layer/Level – On command turns on the layer/level that was previously turned off using Pick Layer/Level – Off. For example, you may have to run the Pick Layer/Level–Off command to turn off a selected layer/level. To view the layer/level, rather than having to pull up the Layer/Level Control dialog box and remember which layer/level was turned off, you can simply select Pick Layer/Level – On and restore the layer/level.

 *You must first use the Pick Layer/Level Off command. If you did not use Pick Layer/Level – Off first, you receive a message stating that no layers/levels were previously turned off.*

Off

LANDSCAPE DESIGN ⇨ TOOLS ⇨ LAYER/LEVEL ⇨ PICK LAYER/LEVEL ⇨ OFF

The Pick Layer/Level – Off command turns off the layer/level of the selected object. For example, you may wish to turn off the trees layer/level so that you can better see the shrub planting near the trees. Rather than having to remember what layer/level the shrubs are on and accessing the layer/level control dialog box, you can run the Pick Layer/Level – Off command.

 *Use the Pick Layer/Level – On command to reverse this command.*

QuickSteps

1. Select Tools → Layer/Level → Pick Layer/Level → Off.

You are prompted:

Select objects/Layers/Levels to turn off.

2. Select the Objects that have the layer/level you wish to turn off and press Enter.

The selected object layers/levels turn off.

Freeze

LANDSCAPE DESIGN ➤ TOOLS ➤ LAYER/LEVEL ➤ PICK LAYER/LEVEL ➤ FREEZE

The Pick Layer/Level – Freeze command freezes the layer/level of the selected object. This command functions similar to the Pick Layer/Level – Off command except that the layer/level selected is not processed or displayed.

 Use the Pick Layer/Level – Thaw command to reverse this command.

QuickSteps

1. Select Tools → Layer/Level → Pick Layer/Level → Freeze.

You are prompted:

Select objects/Layers/Levels to freeze.


2. Select the Objects that have the layer/level you wish to freeze and press Enter.

The selected object layers/levels are frozen.

Thaw

LANDSCAPE DESIGN ➤ TOOLS ➤ LAYER/LEVEL ➤ PICK LAYER/LEVEL ➤ THAW

The Pick Layer/Level – Thaw command thaws the layer/level that was previously frozen using the Pick Layer/Level – Freeze command. This command function is similar to the Pick Layer/Level – On command, except that the selected layer/level is not only visible again, but it is also processed.


 You must have previously frozen a layer/level using the Pick Layer/Level – Freeze command.

Delete

LANDSCAPE DESIGN ➤ TOOLS ➤ LAYER/LEVEL ➤ PICK LAYER/LEVEL ➤ DELETE

The Pick Layer/Level – Delete command deletes all objects on a specified layer/level. For example, you may have created a layer/level called construct that contained all of the

construction lines for the drawing. Now that they are no longer needed, you can simply use this command to delete all of the objects on the layer/level construct.

 *Be careful in using layer/level control throughout the drafting process so that you do not accidentally delete objects that should have been put on a different layer/level.*

QuickSteps

1. **Select Tools → Layer/Level → Pick Layer/Level → Delete.**

You are prompted:

This command will erase everything on the specified layer/level. Layer/Level to Delete:

2. **Type the Layer/Level name that you wish to delete and press Enter.**

All entities on the specified layer/level are deleted.

Copy

LANDSCAPE DESIGN ➤ TOOLS ➤ LAYER/LEVEL ➤ PICK LAYER/LEVEL ➤ COPY

The Pick Layer/Level Copy command copies all objects on a specified layer/level to another layer/level. For example, you may wish to have an exact copy of all the objects on the layer/level contours so that you can retain the original objects on one layer/level, yet still be able to modify the copied objects on another layer/level.

QuickSteps

1. **Select Objects → Layer/Level → Pick Layer/Level → Copy.**

You are prompted to select objects.

2. **Select the objects that you wish to copy to another layer/level and press Enter.**

You are prompted for the layer/level to copy to.

3. **Type the layer/level name you wish to copy to and press Enter.**

The selected objects are copied to the specified layer/level.

Example

The following is an example of the Pick Layer/Level – Copy command.

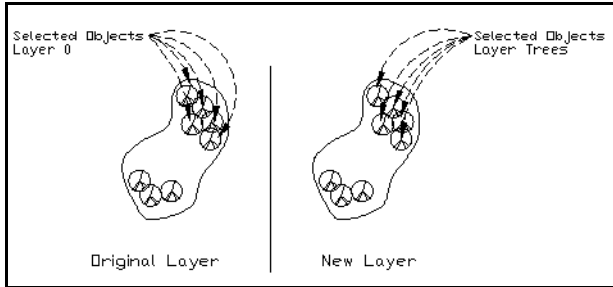


Figure 6-44 Copy Example

Change

LANDSCAPE DESIGN ⇨ TOOLS ⇨ LAYER/LEVEL ⇨ PICK LAYER/LEVEL ⇨ CHANGE

The Pick Layer/Level – Change command changes the layer/level of selected objects to the layer/level of another selected object. For example, you may have forgotten to select the sidewalk layer/level before drawing several sidewalks. This command can be used to select all the newly-drawn sidewalks and simply pick an object already on the sidewalk layer/level.

QuickSteps

1. **Select Tools → Layer/Level → Pick Layer/Level → Change.**

You are prompted:

Select objects to be changed

2. **Select the objects that you wish to put on another layer/level and press Enter.**

You are prompted to pick an object on the desired layer/level.

3. **Select an object that is on the layer/level to which you wish to change.**

The selected objects are changed to that layer/level.

Lines

LANDSCAPE DESIGN ➤ TOOLS ➤ LINES

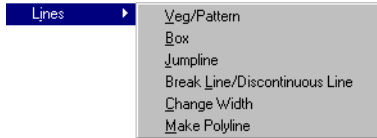


Figure 6-45 Lines Submenu

Veg/Pattern


LANDSCAPE DESIGN ➤ TOOLS ➤ LINES ➤ VEG/PATTERN

KEY-IN COMMAND: `ldvegline`



The purpose of a vegetation line is to illustrate the edges of large masses of plants, rather than showing individual plants. Trees are often shown as just an arc, while shrubs may be shown as either arcs or some type of jagged line. Ground covers can be expressed in many forms, including both a scalloped edge or jagged lines.

Each linetype is defined as a segment via a CAD block. The beginning of a “segment” must exactly match the endpoint of a segment in order to get a resulting line. The blocks are then exploded and a join is done to combine all the segments into a single line entry.

 *Do not use a polyline that has been splined. Splining causes many additional vertices to be inserted. You only want a simple outline of the area to be represented by the vegetation line if you are converting an existing polyline. In most cases, picking points gives you better results.*

 If using AutoCAD/IntelliCAD/**Eagle Point Graphics Engine**/Microstation, be sure to use a standard polyline, and not a lightweight polyline.

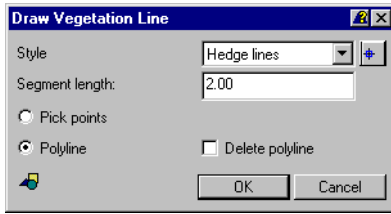




Figure 6-46 Draw Vegetation Line Dialog Box

Draw Vegetation Line Dialog Box Definitions

Option	Icon	Function
Style		You may choose from Hedge lines or Smooth Arcs.
PIC		This option allows you to graphically select blocks to substitute.
Segment length		The segment length is a distance multiplier. Since all line types are defined as a block, this is essentially the X scale factor.
Pick points		This radio button allows you to graphically pick points as the vegetation line is being placed. This requires no existing lines.
Polyline		This radio button allows you to utilize an existing polyline as the basis for the vegetation line.
Delete polyline		This toggle, used in conjunction with the Polyline option, allows the polyline that is used to be deleted automatically once the vegetation line is placed.
CAD Settings		This icon allows you to select symbol color, layer name, line type, and line width. This is for the symbol as well as the optional tick mark.

QuickSteps

1. Select Tools → Lines → Veg/Pattern.

The Draw Vegetation Line dialog box (above) displays.

2. From the Style drop list, choose the style desired, either Hedge lines or Smooth Arcs.

3. Specify a distance for each segment in the Segment length edit field. You may type a value in the edit field, or click in the edit field and then on the PIC button and select the base point and end point in the CAD graphic.

4. Choose either Pick points or Polyline.

A. Pick Points: If you select Pick points, click on OK.

You are prompted to select points.

Select the points in the CAD graphics and press Enter when you are finished.

The vegetation line is drawn in.

- B. Polyline:** If you select Polyline, specify if you want to delete the existing polyline and click on OK.

You are prompted to select the polyline.

Select the polyline in the CAD graphic.

The vegetation line is drawn in.

Example

The following is an example of a vegetation line drawn by selecting a polyline and deleting the polyline.

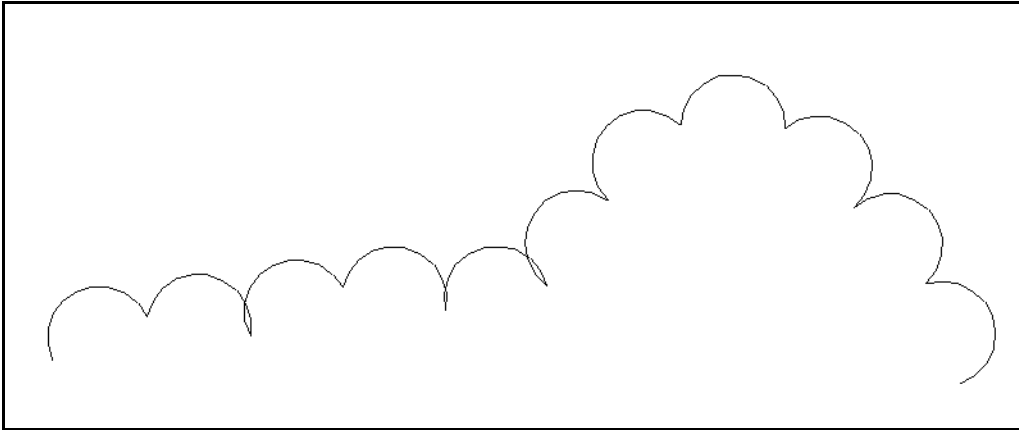


Figure 6-47 Veg/Pattern Command Example

Box

LANDSCAPE DESIGN ⇨ TOOLS ⇨ LINES ⇨ Box

KEY-IN COMMAND: `ldbox`

The Draw Box command allows you to specify two points and draw a box either as a series of line segments, a polyline, or as a solid. For example, you may wish to have a simple square in the drawing to represent a shed. To accomplish this in AutoCAD/

IntelliCAD/MicroStation/**Eagle Point Graphics Engine** requires several steps. Running the Draw Box command only requires two selections.

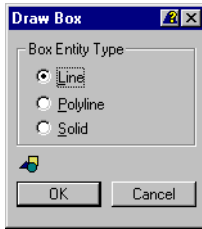



Figure 6-48 Draw Box Dialog Box

Draw Box Dialog Box Definitions

Option	Icon	Function
Box Entity Type		<p>Line: This radio button creates a box by your selection of diagonal points. The result is four line segments.</p> <p>Polyline: This radio button creates a box by your selection of diagonal points. The result is one polyline.</p> <p>Solid: This radio button creates a box by your selection of diagonal points. The result is a shaded, solid square.</p>
CAD Settings		This icon allows you to select symbol color, layer name, line type, and line width. This is for the symbol as well as the optional tick mark.

QuickSteps

1. Select Tools → Lines → Box.

The Draw Box dialog box (above) displays.

2. Select an Entity type, i.e. polyline.

3. Click on OK.

You are prompted to select the first point.

4. Graphically select the desired location of the box corner.

You are prompted to select the next corner.

5. Graphically select the location of the opposite corner.

The box is drawn.

Example

The following is an example of placing a box by picking two points.

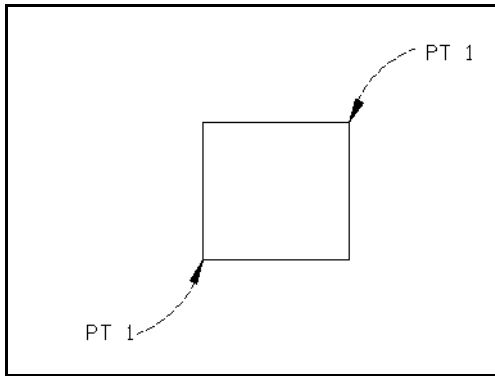


Figure 6-49 Draw Box Example

Jumpline

LANDSCAPE DESIGN ➤ TOOLS ➤ LINES ➤ JUMPLINE

KEY-IN COMMAND: `ldjumpline`

The Jumpline command allows you to break an existing line or polyline and place an arc entity over the line that it crosses. This command is useful in representing a line that is displayed in 2-D, but in 3-D it is on top of the line it crossed.

QuickSteps

With crossing breaklines in your drawing similar to the Before Jumpline crossing lines in Figure 6-50 on page 109, complete the following steps to create a jumpline.

1. **Select Tools → Lines → Jumpline.**
2. **Select Arc Up/Down and click on OK.**
You are prompted to select a line or polyline that includes the jump arc.
3. **Graphically select the line.**
You are prompted to select a first point.
4. **Graphically select the starting point of the jumpline.**
It may be helpful to use a Near snap.
5. **Graphically select the next point.**

The jumpline is placed in the drawing.

Example

The following is an example of placing a jumpline at the intersection of two lines.

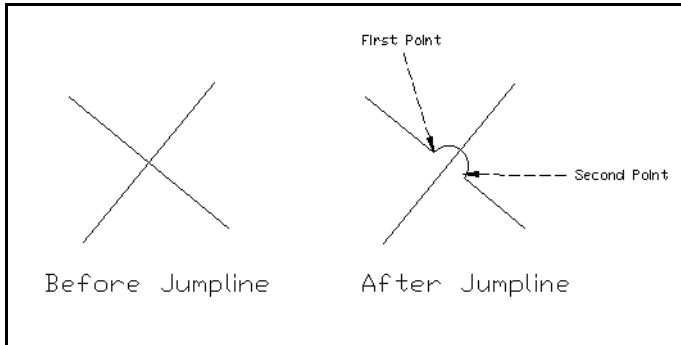



Figure 6-50 *Jumpline Example*

Break Line/Discontinuous Line

LANDSCAPE DESIGN ▢ TOOLS ▢ LINES ▢ BREAK LINE/DISCONTINUOUS LINE

KEY-IN COMMAND: `lddisline`

The Break Line/Discontinuous Line command allows you to represent a break line by either a zigzag or a swoop. This command is useful for representing the area on a drawing that may continue onto another sheet, or to represent a distance that is longer than the distance displayed.

 Use this command to represent sheet breaks when plotting out multiple sheets, or to represent lines with longer-than-shown lengths, such as in creating details.

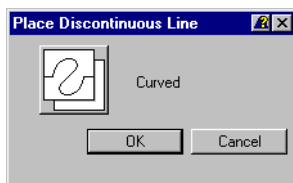


Figure 6-51 *Place Discontinuous Line Dialog Box*

Place Discontinuous Line Dialog Box Definition

<i>Option</i>	<i>Function</i>
Curved/Zigzag	Select the desired type of discontinuous line and click on OK.

QuickSteps

1. **Select Tools → Lines → Break Line/Discontinuous Line.**
2. **Select either Curved or Zigzag and click on OK.**
You are prompted to select a line or polyline.
3. **Graphically select the desired line to break.**
You are prompted to select a first point.
4. **Graphically select the starting point of the break.**
5. **You may find a Near snap helpful.**
You are prompted for a next point.
6. **Graphically select the ending point for the break.**
The discontinuous line is drawn.

Example

The following is an example of placing either a curve or a zigzag to represent a discontinuous line.

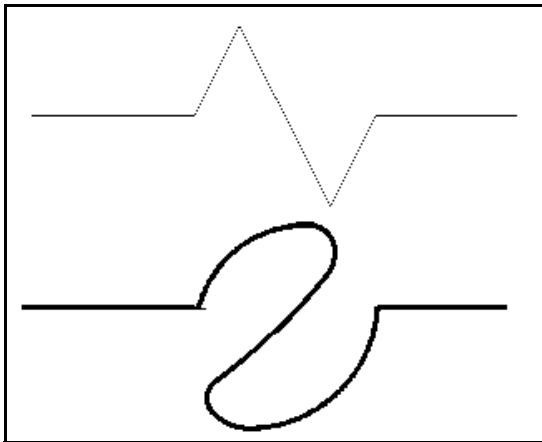


Figure 6-52 Discontinuous Line Example

Change Width

LANDSCAPE DESIGN ➤ TOOLS ➤ LINES ➤ CHANGE WIDTH

KEY-IN COMMAND: `ldchangewidth`

The Change Width command allows you to change the width of a single or multiple polyline segments. For example, you may have several polylines in the drawing that represent houses and sheds. These polylines would look better if they were a thicker width. With this command you can select all of the building Polylines and change their widths to the same width regardless of the previous width.

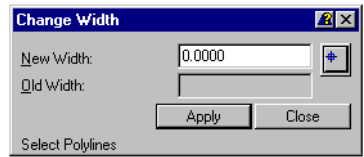


Figure 6-53 *Change Width Dialog Box*

Change Width Dialog Box Definitions

Option	Icon	Function
New Width		Enter the desired width for the selected segments.
Old Width		This field displays information concerning the current width of the polyline to be changed.
PIC		Clicking on this icon allows you to define a setting by selecting either an object or picking points in CAD. This can be for width or selecting an object.

QuickSteps

- Select Tools → Lines → Change Width.**
You are prompted to select objects.
- Graphically select the polylines for which you wish to change the width.**
- Press Enter.**
- Enter the desired width in the New Width field.**
- Click on Apply.**

The selected segments display the new width.

Example

The figure below is an example of changing the width of several polylines.

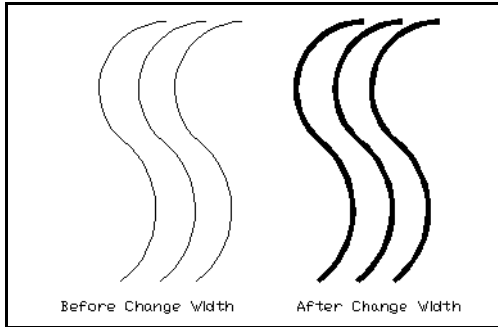


Figure 6-54 Width Example

Make Polyline

LANDSCAPE DESIGN ➤ TOOLS ➤ LINES ➤ MAKE POLYLINE

KEY-IN COMMAND: `ldmakepoly`

The Make Polyline command creates a single polyline from a number of line, arc, and polyline segments. For example, you may have an area around a house on which you wish to run the Autohead command (*Irrigation Design*). This command requires a closed polyline, but you may have created the driveway out of a polyline and the sidewalk out of line segments. Rather than having to redraw the entire area, you can use this command to convert the existing line into a polyline.

QuickSteps

1. Select Tools → Lines → Make Polyline.
2. Select the objects that you wish to turn into a polyline. Right-click when finished.

The selected objects are converted to a single polyline.

Example

The figure below is an example of turning a line, arc, and polyline into a single continuous polyline.

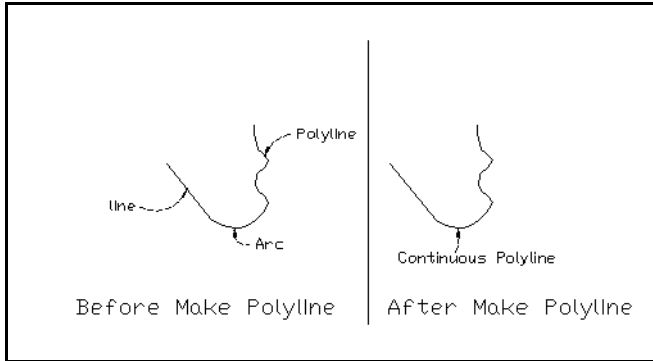


Figure 6-55 Make Polyline Example

Insert Border

KEY-IN COMMAND: `ldinsertborder`



The Insert Border command allows you to place a border in your CAD graphic. You can select the symbol, orientation, and the rotation angle for the border.

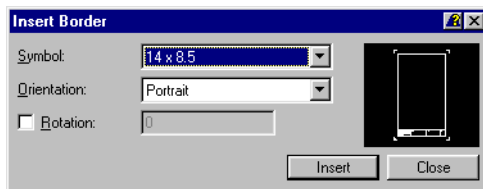


Figure 6-56 Insert Border Dialog Box

Insert Border Dialog Box Definitions

Option	Function
Symbol	Select from predrawn title block symbols.
Orientation	Select from either Landscape or Portrait.

Insert Border Dialog Box Definitions

Option	Function
Rotation	When toggled, on this option indicates the rotation angle for the title block once it is inserted.

Text

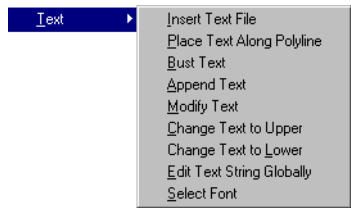



Figure 6-57 Text Submenu

Insert Text File



KEY-IN COMMAND: `ldtextfile`

The Insert Text File command allows you to insert a block of ASCII text into the drawing. This command is useful when you have large blocks of text such as planting specifications that need to be placed in the drawing. It is much faster to type large text items in a word processing package rather than to do it in CAD.

 *When creating large blocks of text in a word processing package, you must use the Save As option and select ASCII (DOS) text. Any custom fonts or settings are lost. The text is inserted according to the current text style settings.*

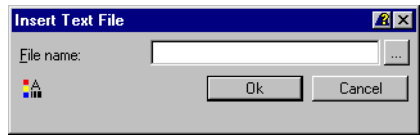




Figure 6-58 Insert Text File Dialog Box

Insert Text File Dialog Box Definitions

Option	Icon	Function
File name		Enter the path and file name of the text file or click on the icon to the right to browse for the file.
Text Settings		This option allows you to define the properties of the text to be inserted. Style, height, and layer information are editable as well.

QuickSteps

1. **Select Tools → Text → Insert Text File.**

The Insert Text File dialog box (Figure 6-58 on page 114) displays.

2. **Type the name and path of the desired file, or click on the Browse icon.**
3. **Click on OK.**

You are prompted:

Locate starting point

4. **Graphically select the desired insertion point.**

The text file is inserted into the drawing.

Example

This is an ASCII text file that was created using the Write Lot Legal command, then inserted using the Insert Text File command.

```
Beginning at a point;
thence S 86°06'09" E
a distance of 38.01' to a point
around a curve to the left
through a central angle of 105°30'39"
an arc distance of 46.16'
a chord bearing of N 01°14'14" W
a distance of 39.91' to a point
thence N 53°59'34" W
a distance of 27.34' to a point
thence S 44°24'42" W
a distance of 38.18' to a point
thence S 24°16'11" E
a distance of 28.65' to a point
to the Point of Beginning
Containing 2251.3661 square feet or
0.0517 acres more or less.
```


Figure 6-59 Text Example

Place Text Along Polyline

LANDSCAPE DESIGN ➤ TOOLS ➤ TEXT ➤ PLACE TEXT ALONG POLYLINE

KEY-IN COMMAND: `ldpolytext`

The Place Text Along Polyline command allows you to enter a text string and have it follow the path of a polyline. This command can be used if you have a need for text strings that do not follow a straight path—for example, if you have a trail winding through a grove of trees. Placing a straight piece of text to label the trail would encroach on the tree symbols, but using text along a polyline, you can label the path.

 *The text that appears on the polyline is in individual text entities, so if you wish to edit the text string at a later time, you may wish to erase the entire string and redo it.*

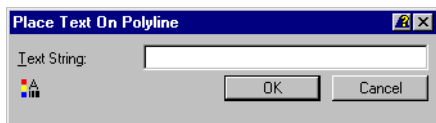



Figure 6-60 Place Text On Polyline Dialog Box

Place Text on Polyline Dialog Box Definitions

Option	Icon	Function
Text String		This is the text to be placed on the selected polyline.
Text Settings		This icon allows you to define the properties of the text to be inserted. Type, height, and layer information are editable as well.

QuickSteps

1. Select Tools ➤ Text ➤ Place Text Along Polyline.

The Place Text On Polyline dialog box (above) is displayed.

2. Type the desired text in the Text String edit field.

3. Click on OK.

You are prompted to select the polyline(s) on which to place the text on.

4. Graphically select the desired polyline(s).

The text is placed along the polyline(s).

Example

The following is an example of placing a text string along an existing polyline.

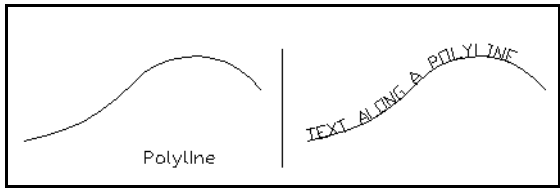



Figure 6-61 Polyline Example

Bust Text



KEY-IN COMMAND: `ldbusttext`

The Bust Text command allows you to break a single text string into two separate text strings. This command is useful if a text string is too long to fit on a single line and you wish to put it on a different line.

 This command is extremely useful for editing large blocks of text that have been imported using the Import Text File command.

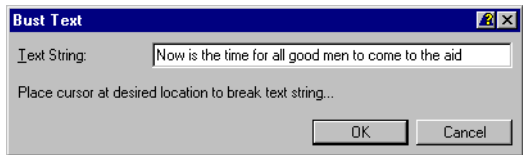


Figure 6-62 Bust Text Dialog Box

Bust Text Dialog Box Definition

Option	Function
Text String	This is the selected text string. Place the cursor at the point to break the text string.

QuickSteps

- Select Tools → Text → Bust Text.**
You are prompted to select text (object).
- Graphically select the piece of text you wish to bust and press Enter.**

The selected text displays in the Bust Text dialog box (Figure 6-62 on page 117).

You are prompted to select the location of the broken piece of text.

3. Click at the location on the text string that you wish to break. Click on OK.

The text is broken from the original text string and placed at the specified location. You are left with two strings to position as desired.

Example

The following is an example of breaking a single text string into two segments.

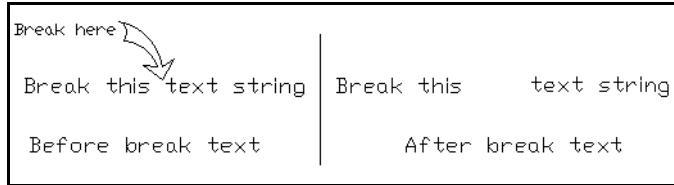



Figure 6-63 Bust Text Example

Append Text

SITE PLANNING ➤ TOOLS ➤ TEXT ➤ APPEND TEXT

KEY-IN COMMAND: `ldappendtext`

The Append Text command allows you to join two separate text strings into a single text string. This command can be used in conjunction with the Insert Text File command. Strings of text can be broken using the Bust Text command and then joined with another line of text using the Append Text command.

 *This command is extremely useful for editing large blocks of text that have been imported using the Import Text File command.*

QuickSteps

1. Select Tools → Text → Append Text.

You are prompted to select text.

2. Graphically select the string of text you wish to append and press Enter.

You are prompted to select the text to append.

3. Graphically select the string of text to be added.

The selected text is added to the original text.

Example

The following is an example of joining two text strings into a single line of text.

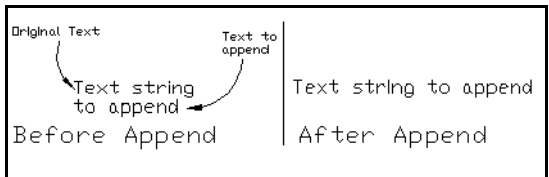


Figure 6-64 Append Text Example

Modify Text

LANDSCAPE DESIGN ⇨ TOOLS ⇨ TEXT ⇨ MODIFY TEXT

KEY-IN COMMAND: `l deditttext`

The Modify Text command allows you to modify several aspects of the text. For example, you may have inadvertently used the wrong text style and height for a piece of text. Typically you would have to erase and retype the text string. With this command, you can modify the appropriate setting.

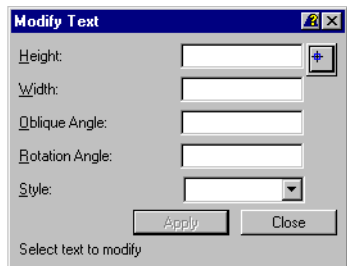


Figure 6-65 Modify Text Dialog Box

Modify Text Dialog Box Definitions

Option	Icon	Function
PIC		This option allows you to graphically select blocks to substitute.
Height		Enter a value in this edit field to change the height of the selected string.
Width		Enter a value in this edit field to change the width of the selected string.

Modify Text Dialog Box Definitions

Option	Icon	Function
Oblique Angle		Enter a value in this edit field to change the oblique angle of the selected text string.
Rotation Angle		Enter a value in this edit field to change the rotating angle of the selected text string.
Style		Select a style from this drop list to change the style of the selected text string.

QuickSteps

- 1. **Select Tools → Text → Modify Text.**
You are prompted to select text.
- 2. **Graphically select the text to be modified.**
The Modify Text dialog box (Figure 6-65 on page 119) displays with the current text setting in the edit fields.
- 3. **Change the desired fields.**
- 4. **Click on Apply.**
The selected text updates to reflect the changes.

Example

The following are examples of changing the height, width, oblique angle, rotation, and style of a text string.

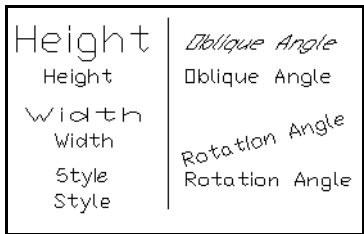


Figure 6-66 Modify Text Examples

Change Text to Upper



KEY-IN COMMAND: ldtoupper

The Change Text to Upper command allows you to change the case of an entire text string to upper case. For example, you may have a piece of text that has already been typed in the drawing, and then decide that the piece of text needs to have more attention called to it by making it all upper case. This command easily accomplishes this. This command can also be used to reverse the Change Text to Lower command.

Change Text to Lower

LANDSCAPE DESIGN ➤ TOOLS ➤ TEXT ➤ CHANGE TEXT TO LOWER

KEY-IN COMMAND: `ldtolower`

The Change Text to Lower command allows you to change the case of an entire text string to lower case. For example, you may inadvertently have capitalized a word or two in the middle of a sentence. Rather than retyping this string or editing each individual word, the Change Text to Lower command can be used. This command can also be used to reverse the Change Text to Upper command.

QuickSteps

1. **Select Tools → Text → Change Text to Lower.**

You are prompted to select text.

2. **Graphically select each piece of text you wish to change and press Enter.**

The selected pieces of text are changed to all lower case letters.

Example

The following is an example of changing an entire text string to either all upper case or all lower case.

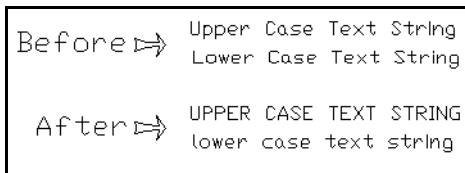



Figure 6-67 Change Text To Example

Edit Text String Globally

LANDSCAPE DESIGN ➤ TOOLS ➤ TEXT ➤ EDIT TEXT STRING GLOBALLY

KEY-IN COMMAND: `ldglobaltext`

The Edit Text String Globally command allows you to make changes to multiple pieces of the same text. For example, if *Acer Rubrum* is misspelled throughout a drawing, this command can be used to correct the spelling for all occurrences in the drawing.

 Use the *Edit Text String Globally* command to change misspelled text strings that occur multiple times in the drawing.

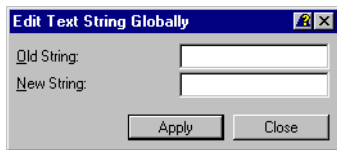


Figure 6-68 *Edit Text String Globally Dialog Box*

Edit Text String Globally Dialog Box Definitions

<i>Option</i>	<i>Function</i>
Old String	The original text string to be modified is displayed in this edit field.
New String	This edit field shows how the text should look after modification.

QuickSteps

1. Select Tools → Text → Edit Text String Globally.

The Edit Text String Globally dialog box (above) displays.

2. In the Old String edit field enter the original text.

3. In the New String edit field, type the text as it should appear.

4. Click on Apply.

All occurrences of the old text string are modified to the new string.

Example

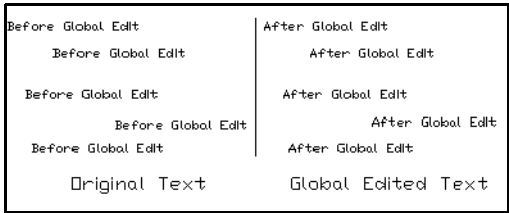
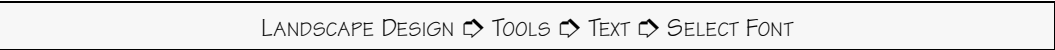


Figure 6-69 Edit Text String Globally Dialog Box

Select Font



KEY-IN COMMAND: ldfont



The Select Font command allows you to change the current font style to another selected style.

When selecting a new font, usually it is a good idea to take all of the default settings, including the default text height. You can then change the text height from within the specified command.

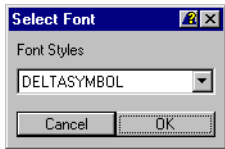


Figure 6-70 Select Font Dialog Box

Select Font Dialog Box Definition

Option	Function
Font Styles	Select the desired font from the drop list and click on OK.

QuickSteps

1. **Select Tools → Text → Select Font.**

The Select Font dialog box (above) displays.

2. Select the desired font type from the drop list and click on OK.
3. Choose the defaults on any remaining questions by pressing Enter each time.

The current font is now the selected style.

 Only fonts (styles) loaded in your CAD session are available for setting here.

Example



Figure 6-71 Font Example

Utilities



Figure 6-72 Utilities Submenu

Import Points



KEY-IN COMMAND: `ldimportpts`

The Import Points command allows you to bring in an ASCII (DOS) text file in several different formats and convert them to CAD points. An example would be if you have a survey data file that is in Easting, Northing, and Elevation format and you wished to

display the information in Northing, Easting, and Elevation (required by **Surface Modeling**).

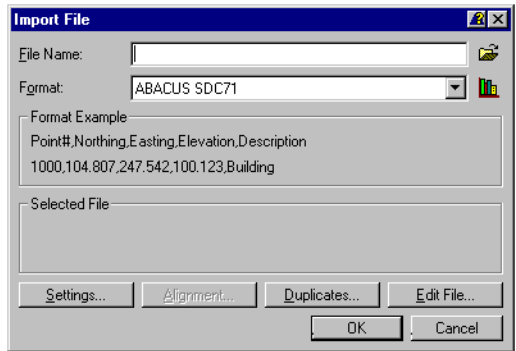




Figure 6-73 Import File Dialog Box

Import File Dialog Box Definitions

Option	Icon	Function
File Name		Type the path and file name of the ASCII point file. You can click on the Open File to Import icon to display the standard Select File dialog box to locate a file.
Open File		Click on this icon to open a file.
Format		You may select the format to be used to import the selected file.
Library		The Library icon allows you to select a different point style to import. Examples of different point styles are Number, Elevation, Northing, Easting, etc.
Format Example		This field displays a sample format that the ASCII file needs to be imported. A description of each part of the format, as well as an example, are given. However, the format can be comma or space delimited and the description is optional.
Selected File		This displays the first line of the selected file to be imported. The first line should match the format example. If it does not, the file cannot be imported.
Settings		You may make modifications to the Import File settings, such as how to place the objects in the CAD graphic, the Default Field Code, a Node ID value to add to the file, and select a specific range of point numbers and/or elevations.
Alignment		This option allows you to select an alignment to import the data along. This option is available for cross-sectional formats.
Duplicates		You may list any of the Nodes being transferred that create more than one occurrence in the project.
Edit File		You may edit the selected file before importing it. To select an editor, first click on the Settings button and choose WordPad or Notepad or specify a different editor.

QuickSteps

1. **Select Tools → Utilities → Import Points.**

The Import Points dialog box (Figure 6-73 on page 125) displays.

2. **Click on the Open icon and select a file from the Select File dialog box and click on Open or type the path and file name of the file to import and press Enter.**

A sample from the selected file displays in the dialog box.

3. **Click on the Format icon and select a format to use as an import filter from the list of supported formats.**

4. **Click on OK.**

A sample of the selected format and the file selected shows so that you can compare to make sure that the format matches the file selected.

5. **Click on the Settings button and make the necessary changes to the import settings.**

6. **Click on OK.**

7. **Check for any duplicate occurrences between the file and the project by clicking on the Duplicates button.**

8. **Click on Close.**

9. **Click on the Edit File button and edit the file in the editor.**

10. **Save the file that was edited and exit the editor.**


11. **Click on OK to import the data.**

Reference Grid

LANDSCAPE DESIGN ⇨ TOOLS ⇨ UTILITIES ⇨ REFERENCE GRID

KEY-IN COMMAND: `ldrefgrid`

The Reference Grid command allows you to lay out a reference grid on the site. The reference grid can be used to locate items in the drawing. For example, suppose you went to the site and took spot elevations every ten feet. You could use the Reference Grid command to lay out a 10 by 10 grid on the drawing. Once the grid is in the site, you could use the Spot Elevation command to represent the elevations taken in the field and simply select the intersection of the lines on the reference grid. This command is also useful for contractors who measure items on site with a tape measure and then approximate their locations on the drawing. After you select Reference Grid from the Utilities submenu (Figure 6-72 on page 124), the Draw Reference Grid dialog box (Figure 6-74 on page 127) displays.

 The grid is placed on locked layers/levels so you may use editing commands like Copy and Erase without affecting the placement of the grid.

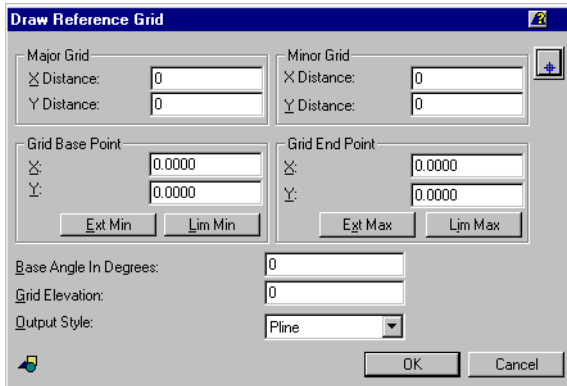




Figure 6-74 Draw Reference Grid Dialog Box

Draw Reference Grid Dialog Box Definitions

Option	Icon	Function
PIC		This option allows you to graphically select the distance by picking two points in CAD.
Major Grid – X Distance, Y Distance		The directions that the major grid follow are displayed here.
Minor Grid – X Distance, Y Distance		These are the distances in the X and Y direction that the minor grid follows. This is a grid within a major grid square. See Figure 6-75 on page 128.
Grid Base Point – X and Y		These are the starting points for the grid.
Grid End Point – X and Y		These are ending points for the grid.
Ext Min/Max		These are the base and ending point of the grid to assume the current setting for the drawing extents.
Lim Min/Max		These are the base and ending points of the grid to assume the current settings for the drawing limits.
Base Angle in Degrees		This is the rotation of the grid off the base angle (typically 0 is to the right).
Grid Elevation		This is the height, or Z elevation that the grid is drawn at.
Output Style		This is the type of entity of which the grid is composed. It is either polyline or mesh.
CAD Settings		This icon allows you to select symbol color, layer name, line type, and line width. This is before the symbol as well as the optional tick mark.

QuickSteps

1. **Select Tools → Utilities → Reference Grid.**

The Draw Reference Grid Dialog box (Figure 6-74 on page 127) displays.

2. **Enter the desired number in the major and minor Grid X and Y Distance edit fields, i.e. 100, 10, respectively.**
3. **Click on the CAD Properties icon and change your layer/level to Grid. If Grid is not a choice, make one in the last edit field.**
4. **Change your Grid Base Points and your Grid End Points, i.e. 0, 0 and 500, 500.**
5. **Select an output style, i.e. Polyline.**
6. **Click on OK.**

The grid entities are placed in the drawing.

Example

The example below is a reference grid that has a major grid X and Y of 10' and a minor grid X and Y setting of 1'. The base angle has been changed to 45 degrees.

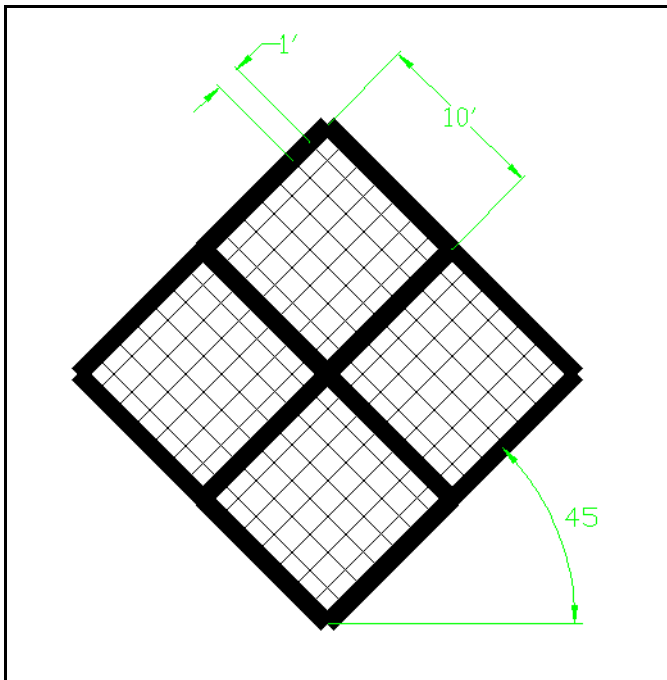


Figure 6-75 Draw Reference Grid Example

Presentation

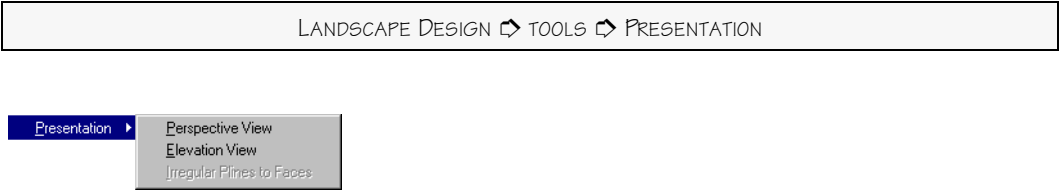



Figure 6-76 Presentation Submenu

Perspective View



KEY-IN COMMAND: `ldperspective`

The Perspective View command allows you to take a drawing with 3-D entities in it and display them in a perspective view. For example, you may have created a 3-D drawing and wish to show the plan to the client who is not versed in reading plan drawings. You can simply run the Perspective View command to give the client a graphic representation of how the site may look once it is built. The block substitution command works well when combined with the create perspective command.

 Enter a value in the Z elevation field under Observers Location (such as 30) to get a “bird’s-eye” view of the sight.

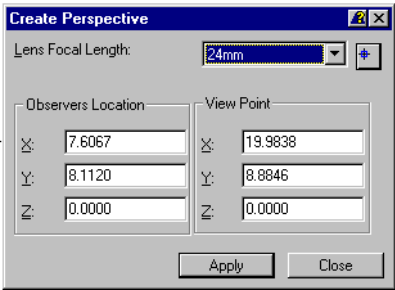



Figure 6-77 Create Perspective Dialog Box

Create Perspective Dialog Box Definitions

Option	Icon	Function
Lens Focal Length		This value is based on a camera lens. The value selected indicates the distance to the right and left that the view encompasses from the observer location.

Create Perspective Dialog Box Definitions

<i>Option</i>	<i>Icon</i>	<i>Function</i>
PIC		Clicking on this icon allows you to define a setting by selecting either an object or picking points in CAD.
Observers Location		The values in these edit fields represent the coordinates from which an observer is standing.
View Point		The values in these edit fields represent the coordinates toward which the observer is looking.

QuickSteps

1. Select Tools → Presentation → Perspective View.

The Create Perspective dialog box (Figure 6-77 on page 129) displays.

2. Select the lens focal length (i.e., 24mm).

3. Click on the PIC button.

4. Graphically select where you wish to be standing.

5. Click on the PIC button under View Point.

6. Graphically select the point that you want to look to.

7. Click on Apply.

The current view is turned into a perspective view.

Example

The following is an example of Perspective variables.

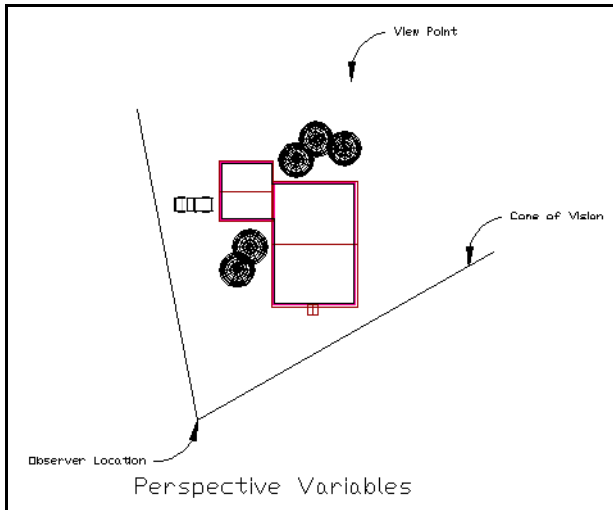


Figure 6-78 Perspective Variables Example

The figure below is an example of Perspective view.

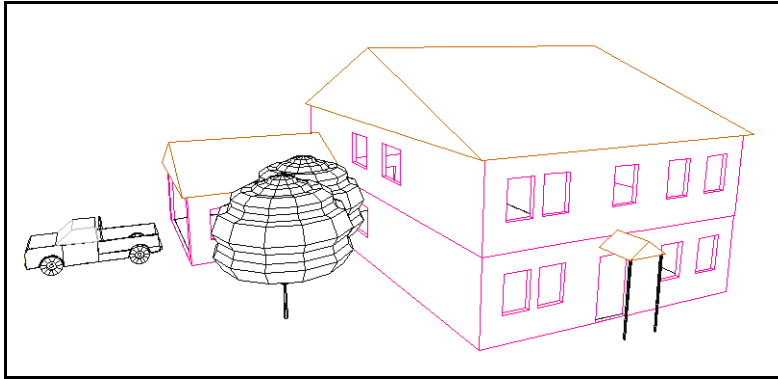



Figure 6-79 Perspective View Example

Elevation View

LANDSCAPE DESIGN ➤ TOOLS ➤ PRESENTATION ➤ ELEVATION VIEW

KEY-IN COMMAND: `ldelevation`

The Elevation View command allows you to view a drawing with 3-D entities in Elevation View. This command is useful for converting a 3-D drawing into an elevation view without having to use complicated UCS commands. An elevation view is essentially looking at a sight straight on, or rotating a plan view a full 90 degrees in the height or Z value.

 *You must have two polylines in the drawing before running this command: the first at the front of the desired elevation and the second at the back of the desired elevation. The elevation lines do not have to be parallel to each other.*

QuickSteps

1. Select Presentation → Elevation View.

You are prompted to select the polyline to use for the front of the elevation.

2. Graphically select the polyline and press Enter.

You are prompted to select the polyline to use for the rear of the elevation.

3. Graphically select the polyline and press Enter.

The drawing is displayed in elevation view.

Example

The following is an elevation variables example.

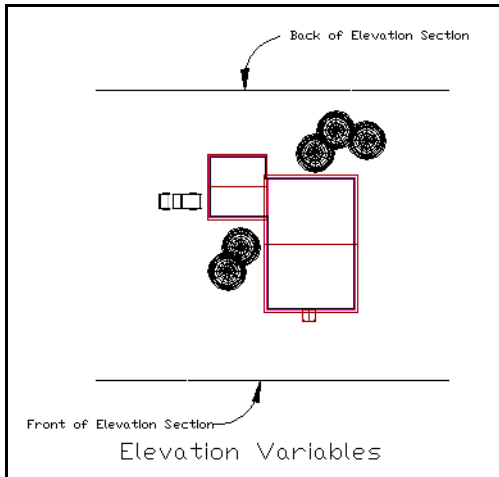


Figure 6-80 Elevation Variables Example

The figure below shows an elevation view example.

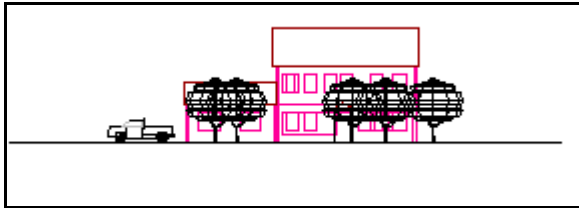


Figure 6-81 Elevation View Example

AUDIT

The Audit Plants command found in the Audit menu (below) is a feature that provides you with the ability to identify and recover damaged plant materials in the design.



Figure 7-1 Audit Menu

In this chapter:

Audit Plants 136

CHAPTER

7

Audit Plants


LANDSCAPE DESIGN ➤ AUDIT ➤ AUDIT PLANTS

The Audit Plants command displays the Audit dialog box (below). You have three options: Selection Set, Select by Layer, and Select All. This dialog box provides the methods necessary for you to audit portions of the design or the entire design.



Figure 7-2 Audit Dialog Box

Audit Dialog Box Definitions

Option	Icon	Function
Selection Set		The Selection Set radio button utilizes the CAD engine to select a portion of your design to audit.
Select by Layer		The Select by Layer radio button selects plant materials by a selected layer/level for audit.
Select All		The Select All radio button selects all items in your design for audit.
CAD Settings		This icon allows you to select symbol color, layer name, line type, and line width. This is for the symbol as well as the optional tick mark.

Selection Set

LANDSCAPE DESIGN ➤ AUDIT ➤ AUDIT PLANTS

The Selection Set command allows you to select a portion of your design to audit using your CAD engine.

Select by Layer

LANDSCAPE DESIGN ➤ AUDIT ➤ AUDIT PLANTS ➤ SELECT BY LAYERS/LEVELS

Use the Select Layer dialog box (below) to select the layer you wish to be audited. Highlight the layer to be audited by clicking on the layer names desired. Click on OK to complete the process.

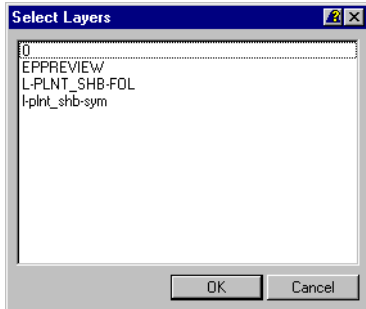


Figure 7-3 Select Layers Dialog Box

Select All

LANDSCAPE DESIGN ➤ AUDIT ➤ AUDIT PLANTS

The Select All command selects all items within a drawing. You need not select any group of plants for this option.

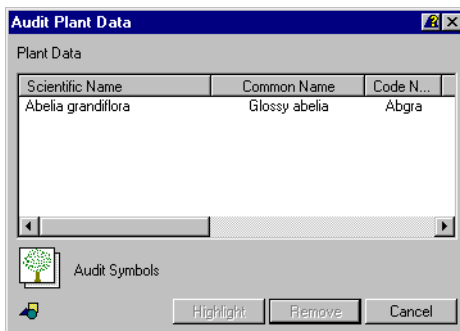




Figure 7-4 Audit Plant Data Dialog Box

Audit Plant Data Dialog Box Definitions

Option	Icon	Function
Plant Data		The Plant Data groups display the existing valid plants in the design.
Audit Symbols		The Audit Symbols icon toggle allows you to switch between audits of the Audit Plant Data dialog box (Figure 7-4 on page 137) and the Audit Symbols dialog box (below).
CAD Settings		This icon allows you to select symbol color, layer name, line type, and line width. This is for the symbol as well as the optional tick mark.
Highlight		Click on the Highlight button to place a box around the plant symbols in the design that you have selected.
Remove		Click on the Remove button to delete a plant from your design.

When you click on the Audit Symbols icon toggle in the Audit Plant Data dialog box (Figure 7-4 on page 137), the Audit Symbols dialog box (below) is displayed. This provides you with the tools necessary to recover plant materials.

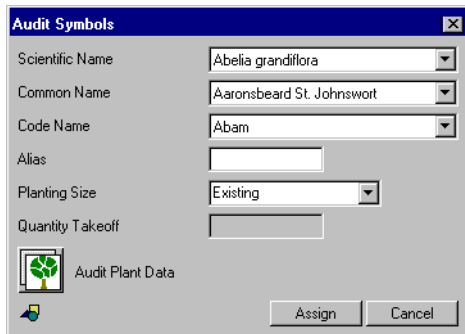




Figure 7-5 Audit Symbols Dialog Box

Audit Symbols Dialog Box Definitions

Option	Icon	Function
Scientific Name		The Scientific Name is the Latin name by which all plants are scientifically categorized.
Common Name		This is the common name to which all plants are referred in everyday language.
Code Name		The Code Name is an abbreviated name for the plant that may be used for labeling purposes at a later time.
Alias		The Alias name is the name that the designer may use to refer to the plant.
Planting Size		The planting size is the installed size of the plant.
Quantity Takeoff		Quantity Takeoff allows you to select a QTO identification number for the estimate process.

Audit Symbols Dialog Box Definitions

<i>Option</i>	<i>Icon</i>	<i>Function</i>
Audit Plant Data		Click on the Audit Plant Data icon toggle redisplay the Audit Plant Data dialog box (Figure 7-4 on page 137).
CAD Settings		This icon allows you to select symbol color, layer name, line type, and line width. This is for the symbol as well as the optional tick mark.
Assign		The Assign button attaches the plant data to the indicated symbols.

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